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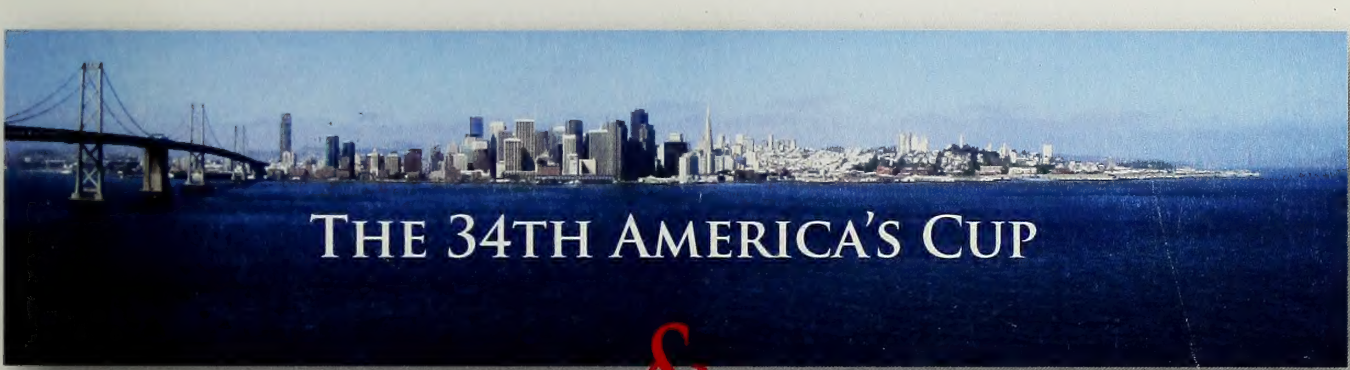

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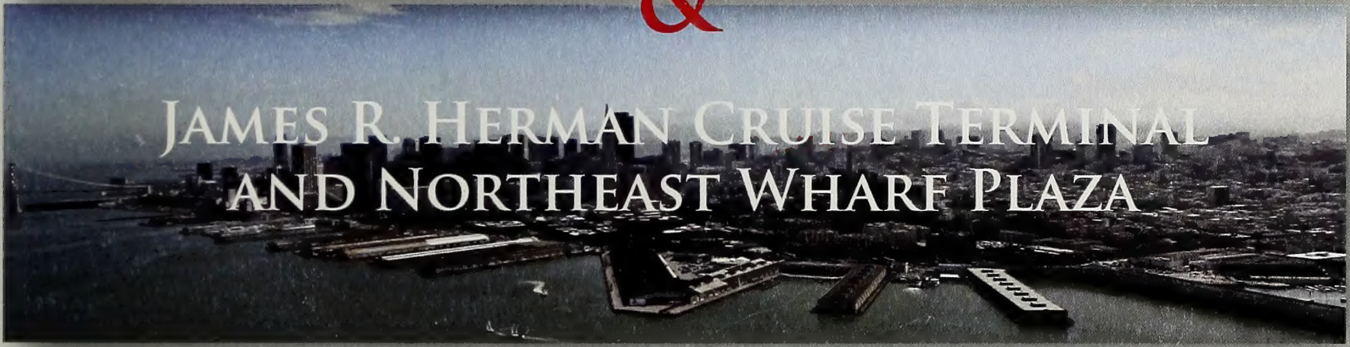

JAMES R. HERMAN CRUISE TERMINAL AND NORTHEAST WHARF PLAZA

SAN FRANCISCO PLANNING DEPARTMENT CASE NO. 2010.0493E
STATE CLEARINGHOUSE NO. 2011022040

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CHAPTER 12

Responses to Comments (continued)

12.12 Noise and Vibration

12.12.1 Overview of Comments on Noise and Vibration

The comments and corresponding responses in this section cover topics in Chapter 5, Section 5.7, of the EIR. These include topics related to:

- NO-1, Construction Noise and Vibration Impacts
- NO-2, Noise Impacts from Generator Operations
- NO-3, Amplified Sound Noise Impacts
- NO-4, Helicopter Noise Impacts
- NO-5, Traffic and Celebration Noise Impacts in Marin County
- NO-6, Noise Impacts at Sensitive Receptors at Crissy Field
- NO-7, Suggested Noise Mitigation Measures and Cumulative Noise Impacts
- NO-8, Long-Term Development – Noise Impacts and Mitigation

12.12.2 Construction Noise and Vibration Impacts [NO-1]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-232	O-GGNPC2-12	O-WW-26	O-WW-29

- The EIR should identify vibration impacts on all structures in the Embarcadero Historic District. Mitigation Measure M-NO-3 should specify corrective measures in the event of unacceptable ground movement. [O-ACEC-232]

- The EIR does not account for construction noise impacts on Crissy Field Center. [O-GGNPC2-12]

- Mitigation Measure M-NO-1a includes qualifiers and provisos that make its effectiveness on construction noise impossible to judge. [O-WW-26]

- Mitigation Measure M-NO-3 relies on future studies to develop its standards for vibration impacts and cannot be adequately commented on at this time. [O-WW-29]

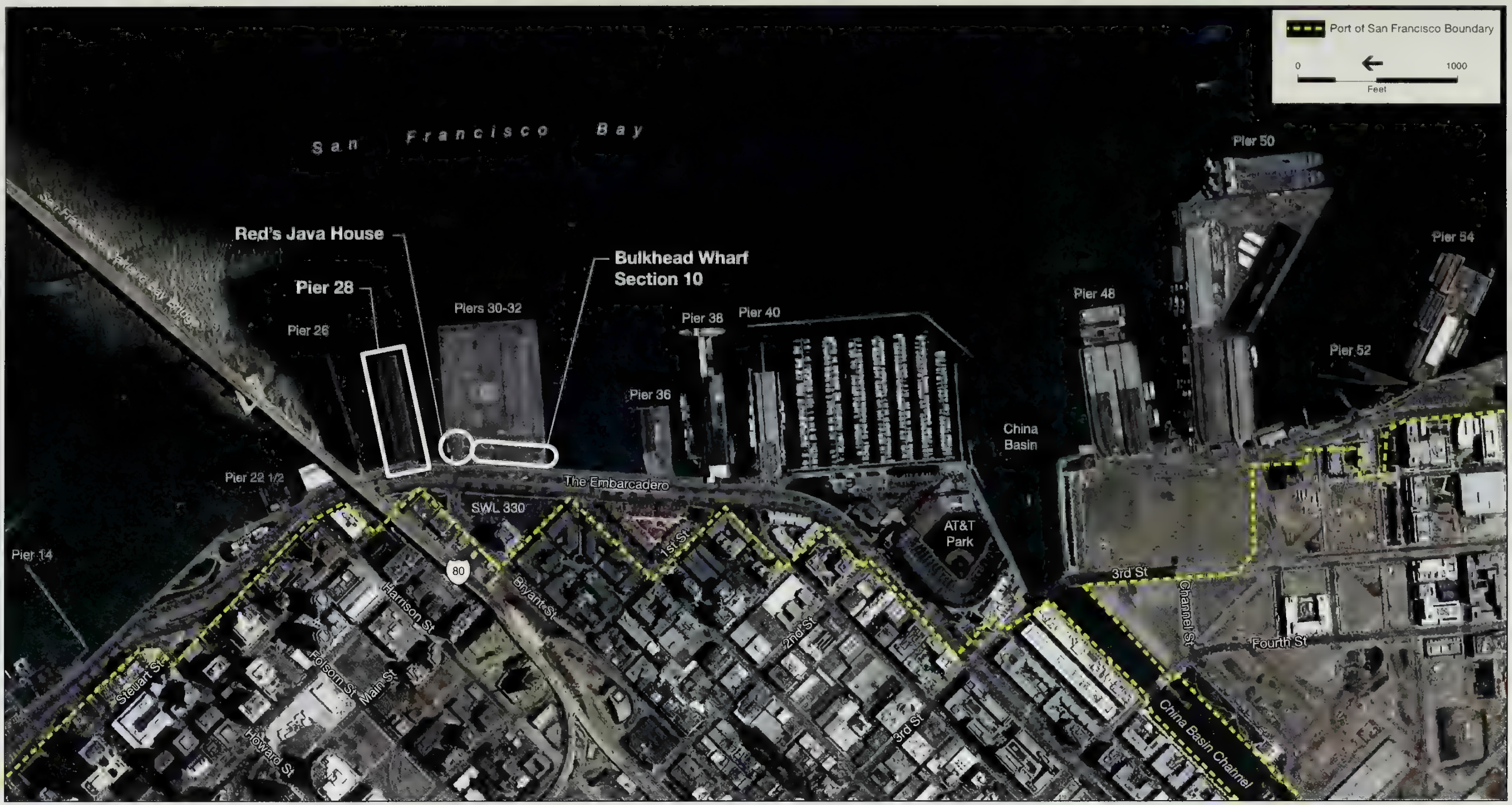
Response NO-1

In response to Comment O-GGNPC2-12: construction noise impacts on spectator areas, including those specified in the Crissy Field East Venue Plan, are addressed in Section 5.7.3.3, Impact NO-1, and specifically on page 5.7-32 of the Draft EIR. Proposed bleacher seating tents/canopies would require construction activities consisting of truck deliveries of materials and low-impact construction equipment (e.g., forklifts and power tools) to erect bleachers and tented structures. Use of heavy-duty off-road diesel equipment is not anticipated. Consequently, construction activities at these spectator areas would reasonably be expected to conform to the San Francisco Noise Ordinance and were found to result in a less-than-significant construction noise impact.

In response to Comment O-WW-26: Mitigation Measure M-NO-1a, Noise Controls During Construction, in EIR Section 5.7, page 5.7-32 to 5.7-33, lists noise control practices to be implemented during construction and includes language that would provide construction contractors reasonable flexibility while at the same time ensuring reduction of construction noise to less-than-significant levels (in conjunction with Mitigation Measure M-NO-1b, Pile Driving Noise-Reducing Techniques and Muffling Devices). The measure requires contractors to use construction equipment with lower noise emission ratings, particularly air compressors, whenever possible. The phrase "whenever possible" is applied because some equipment types, such as pile drivers, are not available with variable noise emission ratings. However, the mitigation measure specifically calls out air compressors as being subject to these requirements because these ubiquitous, repetitive noise sources are commonly available with variable noise ratings. This mitigation measure also directs contractors to locate construction staging areas "as far as practicable" from sensitive receptors. For some AC34 construction areas, such as Pier 80, receptors are located distant from the project area and ample open space exists for staging equipment and materials. For other construction locations, however, available storage space in the vicinity may be limited. Requiring contractors to use distant staging areas for such locations would have secondary impacts on air quality and result in longer construction times and associated increased duration of noise impacts. Consequently, this mitigation provides leeway for contractors to use reasonable judgment, making the measure more practical to implement at every construction site.

Mitigation Measure M-NO-1a also directs contractors to prohibit unnecessary idling of internal combustion engines. While regulations of the California Air Resources Board restrict idling of diesel truck engines to 5 minutes or less, stationary source engines have no such restrictions. However, some stationary engines such as those used to power generators require constant operation, which would represent a condition for "necessary idling." Such idling would become "unnecessary" if power requirements were no longer needed for the duration of the work day. These provisos are not intended to allow contractors to avoid implementation of mitigation measures, but rather to provide mitigation measures that can be reasonably implemented from a practical standpoint.

Comments O-ACEC-232 and O-WW-29 express concerns about Mitigation Measure M-NO-3. Mitigation Measure M-NO-3, Pre-Construction Assessment to Minimize Structural Pile-Driving Impacts on Adjacent Historic Buildings and Structures and Vibration Monitoring, on pages 5.7-40 to 5.7-41, addresses potential structural impacts from vibration generated by pile-driving activities near adjacent historic buildings. This measure addresses Impact NO-3, which identifies pile-driving activity in the vicinity of Piers 28, Piers 30-32, Red's Java House, and Bulkhead Wharf Section 10 as potentially resulting in a significant vibration impact on historic structures. These are historic structures that would be within 60 feet of pile-driving activities where vibrations could exceed 0.2 inch per second. **Figure 12.12-1** shows the location of these potentially affected historic structures. These are the only fragile structures that would be within 60 feet of proposed pile-driving activities and subject to vibration impacts based on the United States Department of Transportation criterion for construction vibration damage.



SOURCE: Google Maps; ESA

Case No. 2010.0493E: AC34 / Cruise Terminal and Northeast Wharf Plaza (210317)

Figure 12.12-1
Historic Structures Potentially
Impacted by Construction Vibration

Mitigation Measure M-NO-3 would require a pre-construction assessment of existing subsurface conditions and the structural integrity of nearby historic structures subject to pile-driving activity. This measure identifies a mechanism to ensure implementation (a condition of building permit) as well as specific corrective measures to be implemented, as required, such as underpinning of foundations of potentially affected structures. The measure specifies clear performance standards, consistent with CEQA Guidelines Section 15126.4, such that the significant effects would be mitigated to less-than-significant levels as determined by the Chief Harbor Engineer.

12.12.3 Noise Impacts from Generator Operations [NO-2]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-Dolphin3-10	O-GGNPC2-12	O-WW-27

- Generator use on a floating barge would cause significant air and noise pollution. [O-Dolphin3-10]
- The EIR does not account for generator noise impacts on Crissy Field Center. [O-GGNPC2-12]
- Mitigation Measure M-NO-2a is too vague to be enforceable. The mitigation should require the use of "Level 1 sound enclosures" for generators. [O-WW-27]

Response NO-2

Mitigation Measure M-NO-2a, Shielding or Acoustical Enclosures for Generators at Piers 27-29 and Marina Green, in EIR Section 5.7.3.3, page 5.7-37, establishes a performance standard for generator noise reduction at the Pier 27-29 and Marina Green spectator event areas. The potential for achievement of this reduction was verified using specifications for Level 1 noise enclosures for the size of generators proposed. However, this level of noise reduction may be achieved through other means, such as shielding or use of smaller/quieter generators, and therefore, consistent with consistent with CEQA Guidelines Section 15126.4, the mitigation measure establishes a performance standard rather than restricting the Event Authority to a single method of mitigation. See Response NO-6 below for revisions to this mitigation measure.

Operational noise impacts from generators on spectator areas, including those specified in the Crissy Field East Venue Plan, are addressed on pages 5.7-34 and 5.7-35 of the Draft EIR. Table 5.7-6 on page 5.7-35 of the Draft EIR shows that the increase in ambient noise levels at the nearest residential receptor to Crissy Field would be 1.8 dBA, and this would represent a less-than-significant impact. Please see Response NO-6 in Section 12.12.7 below for assessment of potential generator noise impacts on educational uses at Crissy Field Center.

Potential generator noise impacts at Aquatic Park would be the result of a generator used to power electrical equipment on the video barge. Operation of this generator upon the barge would result in a localized increase in ambient noise levels that was not noted in the Draft EIR. Consequently, the EIR text in Table 5.7-6 on page 5.7-35 is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

TABLE 5.7-6 [REVISED]
NOISE LEVELS WITH OPERATION OF GENERATORS DURING AC34 EVENTS

Spectator Areas/Piers	Nearest Sensitive Receptor and Distance from Generator	Existing Noise Level (dBA, L_{eq})	Existing Noise Level with Generator (dBA, L_{eq})	Increase Over Ambient Noise Level (dBA, L_{eq})
Fort Baker Pier	Cavallo Point Lodge, 1,660 feet	49.0	56.6	+ 7.6[a]
Crissy Field	Armistead Road Residences, 1,000 feet	62.3	64.1	+ 1.8
Fort Mason	Residences at Laguna and North Point Streets, 1,100 feet	68.0	68.1	+ 0.1
Marina Green	Marina Boulevard, 300 feet	63.2	71.3	**+ 8.1**
Aquatic Park	Ghirardelli Square (residential units on the upper floors), 750 feet	65.0	65.9	+ 0.9
Alcatraz Island	None	---	---	---
Pier 19	218 Filbert Street, 900 feet	58.5	62.8	+ 4.3
Pier 23	218 Filbert Street, 900 feet	58.5	62.8	+ 4.3
Piers 27-29	101 Lombard Street, 500 feet	63.0	71.4	**+ 8.3**
Piers 30-32	38 Bryant Street, 500 feet	68.9	70.7	+ 1.8

NOTES: **Bold** indicates increase that exceeds ambient noise levels at a residential property line by more than 5 dBA (San Francisco Police Code Section 2909[a]]1]).

[a] Does not account for attenuation of intervening hillside.

SOURCE: Environmental Science Associates, 2011.

This text change does not alter the findings of significance for noise impacts, either prior to or after mitigation. As indicated by the data in this table, sensitive receptors in the Aquatic Park area would experience a less-than-significant increase in ambient noise as a result of generator operations on the video barge.

As described in Chapter 11, subsequent to the publication of the Draft EIR, the project sponsors have revised and augmented the air quality mitigation measures in response to public comment received on the Draft EIR and in coordination with the Bay Area Air Quality Management District. As part of these augmented measures, Mitigation Measure M-AQ-5, Clean Sources for Temporary Power at Venues, has been revised in this Comments and Responses document (see Section 12.13 for full description of the revised measure) to require that electricity or non-diesel powered generators serve as the primary option for supplying temporary power to the venue sites. It is anticipated that under the AC34 Project Variant, electrical power during operations of the AC34 2013 events at Piers 27-29 would be provided by the local public utility rather than through use of generators as was assumed for the Draft EIR AC34 project. Preliminary studies indicate that power for the event venue at Piers 27-29 can be fed from electrical service at the site. Implementation of this mitigation measure would reduce operational noise impacts of generator use at Piers 27-29 to less than significant. See Response NO-6 below for revisions to Mitigation Measure M-NO-2a that are consistent with the revisions to Mitigation Measure M-AQ-5. However, the significance determination for Impact NO-2 regarding overall operational noise impacts of the AC34 events would remain significant and unavoidable due the uncertainty of the effectiveness of identified mitigation measures for amplified noise sources.

12.12.4 Amplified Sound Noise Impacts [NO-3]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-33	A-NPS2-151	O-GGNPC-12	O-WW-28

- The EIR does not address noise impacts of event-proposed uses on Crissy Field or SAFR; directing speaker systems toward the Bay at park sites would affect sensitive natural resources such as birds. [A-NPS2-33]
- Noise due to increased overflights, boat traffic, and special events would affect a large area and affect wildlife and visitors. [A-NPS2-151]
- The EIR does not account for noise impacts on Crissy Field Center due to amplified sound being carried from the hospitality/exhibition/media site. [O-GGNPC-12]
- Mitigation Measure M-NO-2b, setting out a Noise Control Plan to require permits for the noise impacts of public address and amplified music, must provide enough detail to know which events would require such permits. [O-WW-28]

Response NO-3

Mitigation Measure M-NO-2b, Noise Control Plan for Entertainment Venues, in EIR Section 5.7.3.3, page 5.7-37, establishes a Noise Control Plan for entertainment venues to address potential noise impacts from amplified sound. One element of this Noise Control Plan is to direct speaker systems toward the Bay, away from the nearest sensitive receptors to the degree feasible. Because of the variability in the source of these potential impacts (e.g., volume settings, low-frequency component of music, atmospheric effects), it could not be demonstrated that the mitigation measure would be sufficient to consistently reduce potential impacts to less-than-significant levels, and the impact was conservatively identified as significant and unavoidable with respect to noise and vibration impacts on humans. Noise effects on marine and terrestrial wildlife as a sensitive receptor are dependent on species and a number of biological factors, and those effects are addressed in Section 5.14, Biological Resources, of the Draft EIR.

As stated on page 5.14-27 in Section 5.14, Biological Resources, noise disturbances would mainly be along the San Francisco waterfront, and generally vegetation and wildlife in the project area are already exposed to a high level of ambient disturbance. The baseline includes urban harassment in the project area within San Francisco and visitor and tourist disturbance at all the sites and venues generating noise, people, vehicle and aircraft traffic, feral animals, and recreational and commercial ship and boat activity on the water. Alcatraz, for example, hosts 1.4 million people per year, according to the National Park Service (NPS).[1] Given the existing baseline conditions, AC34 impacts assessed in Section 5.14, Biological Resources, focus on intrusive noise sources such as fireworks, pile driving, and helicopter and marine vessel operations for which impacts were reduced to less-than-significant levels with mitigation. Comparatively, amplified noise would likely result in relatively more moderate increases in the local noise environment and would be attenuated with distance out over the Bay, such that only a very small area of the acoustic environment over the Bay would be affected even if birds disperse as a result of speaker noise. Thus, impacts of amplified sound on birds along the shoreline and in the Bay would be less than significant.

Mitigation Measure M-NO-2b is identified in the Draft EIR to address potential noise impacts from proposed AC34 entertainment venues. As stated, noise mitigation would apply to permitted events (first bullet) as well as unpermitted events (second bullet). Permit requirements of the San Francisco Entertainment Commission are discussed on page 5.7-19 of the Draft EIR. Conditions of the second bullet to mitigate non-permitted events are derived from established San Francisco Noise Ordinance Section 2909(d) criteria discussed on page 5.7-18 of the Draft EIR and represent a City-mandated performance standard.

Amplified sound is expected to be generated at stage areas set up at the major event venues. For Crissy Field, the stage area would be located at the Crissy Field West Venue as indicated in Figure 3-20 of the Draft EIR. There are no stage areas proposed for the Crissy Field East Venue Plan shown in Figure 3-21 of the Draft EIR. The stage location in the Crissy Field West Venue Plan would be approximately 4,000 feet from Crissy Field Center. The stage location in Marina Green would be approximately 2,000 feet from Crissy Field Center and facing the opposite direction. While amplified sound may well be audible at these distances, attenuation of noise levels over distance as well as implementation of Mitigation Measure M-NO-2b would reduce potential noise impacts from amplified sound at Crissy Field Center to less-than-significant levels.

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[1] PRBO Conservation Science, *Connecting People with Birds on Alcatraz Island,* The Observer Number 148, http://www.prbo.org/obs_cms/index.php?module=browse&browse_issue_num=148&browse_article_num=140&chooseIssue=1, 2007.

12.12.5 Helicopter Noise Impacts [NO-4]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-33
A-NPS2-94
A-Belvedere-07
A-MBOS-04
I-Blum-01

- The EIR does not address the noise impacts of helicopters on natural resources such as birds. [A-NPS2-33]
- The EIR does not evaluate the effect of helicopter noise on visitors or wildlife. Breeding birds and the visitor experience are particularly sensitive to noise. [A-NPS2-94]
- The analysis must provide information on helicopter use of Belvedere airspace. Flights at low elevation over residential neighborhoods will not be permitted. [A-Belvedere-07]
- Marin communities are concerned about the noise impacts of helicopters during races. [A-MBOS-04]
- Noise from three helicopters and other sources would be funneled uphill into nearby San Francisco neighborhoods. [I-Blum-01]

Response NO-4

Helicopter noise impacts are addressed in Section 5.7.3.3, Impact NO-4, pages 5.7-41 through 5.7-43 of the Draft EIR. As stated on page 5-7-41, Title 21 of the State Aeronautics Act provides that areas exposed to aircraft noise levels less than 65 dB CNEL are acceptable for residential and other noise-sensitive land uses. On a typical day during the AC34 events in 2012 and 2013, helicopter operations would not generate noise levels equal to or greater than 65 dB CNEL over any noise-sensitive land use in proximity to the race course circuit.[2] The 65 dB CNEL contour would be approximately 2,000 feet north of the SAFR Municipal Pier, the northernmost boundary of SAFR lands and approximately 3,000 feet north of Crissy Field. Consequently, helicopter noise would have a less-than-significant impact on SAFR lands and Crissy Field.

Helicopter noise impacts on wildlife are addressed in Section 12.19, Response BIU-4, which discusses aircraft and helicopter effects on wildlife species in response to the same issues raised in Comment A-NPS2-94.

As stated on page 5.14-104 in Section 5.14, Biological Resources, of the Draft EIR, low-flying helicopter operations would result in potentially significant impacts on seals, sea lions, and humpback whales if these animals are present in the project area during the AC34 2012 and 2013 racing events. Consequently, Mitigation Measure M-BI-14 (Restrictions on Low-Flying Aircraft) was identified in the Draft EIR to reduce potential impacts to less-than-significant levels.

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[2] Based on the results of noise modeling, the typical day of operations is represented by the "average annual day," which is a daily average annualized out to 365 days where the evening and nighttime periods are weighted due to the lower levels of ambient noise during those periods.

As described in the EIR on pages 5.7-41 and 5.7-42, exposure to helicopter noise levels was quantified using a Federal Aviation Administration (FAA)-approved noise model, the Integrated Noise Model. The modeled flight tracks for helicopter operations followed the race course and included a one-half-mile buffer on either side to account for the variations of individual helicopter flights. In order to cover the race, the modeling assumed the helicopters would be flying at relatively low altitudes. The helicopter types included two Bell 206L Long Rangers and one Robinson R-44 for each year. (The Bell 206 is a family of two-bladed, single- or twin-engine helicopters, manufactured by Bell Helicopter; Bell redesigned the airframe and marketed the aircraft commercially as the Bell 206A Jet Ranger.) The Jet Rangers were modeled at 100 feet above sea level (ASL) and the Robinson-44s at 300 feet ASL at an average speed of 30 knots while in flight and included 15 minutes of hovering time per race. The proposed race areas are over the Bay and a buffer of over 3,000 feet exists between Belvedere and the northwestern extent of the modeled 65 dB CNEL noise contour. Consequently, helicopter noise would have a less-than-significant impact on Belvedere. Under the updated race course that identifies the primary race area under the AC34 Project Variant, as described in Chapter 11, the northern extent of the primary race area would be scaled back by approximately 6,000 feet, further reducing the northern extent of helicopter operations. The Water and Air Traffic Plan might also include limitations on the altitude and lateral extent of helicopter operations, which could further reduce noise levels.

The Marin County community closest to the helicopter flight tracks modeled in the Draft EIR would be Sausalito, approximately 1,200 feet away from the western extent of the modeled 65 dB CNEL noise contour in this area. Consequently, helicopter noise would have a less-than-significant impact on sensitive land uses in Marin County. As described above, the primary race area in the updated race course would scale back the northern extent of the race course by approximately 6,000 feet, further reducing the northern extent of helicopter operations and reducing the magnitude of helicopter noise contributions. The Water and Air Traffic Plan would also put limitations on the altitude and lateral extent of helicopter operations.

The closest noise-sensitive land uses in San Francisco are in the Telegraph Hill neighborhood. These uses would be approximately 3,000 feet away from the southern extent of the modeled 65 dB CNEL noise contour in this area. Consequently, helicopter noise would have a less-than-significant impact on sensitive land uses in San Francisco. The Water and Air Traffic Plan would also put limitations on the altitude and lateral extent of helicopter operations.

12.12.6 Traffic and Celebration Noise Impacts in Marin County [NO-5]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-MBOS-04	A-MCCDA-06

- Marin County communities are concerned about the noise impacts of increased traffic and planned or spontaneous celebrations during races. [A-MBOS-04]

- The EIR should discuss the impacts of traffic noise on Marin County, and describe any noise impacts that might result from planned or spontaneous celebrations during races. [A-MCCDA-06]

Response NO-5

The only AC34 spectator venue location proposed for Marin County is the Fort Baker Pier at Cavallo Point, where up to 800 daily spectators are predicted to gather as shown in Table 3-7 of the Draft EIR. This table also shows the estimated peak number of spectators at secondary viewing areas (other public areas where spectators might watch the AC34 races for which no project infrastructure is proposed), including up to 3,500 spectators along Fort Baker/Marin Headlands locations, 5,000 daily spectators along the Sausalito waterfront, and 1,200 spectators along the Belvedere/Tiburon waterfronts. Noise generation by spectators at the corner edge of the racing circuit would largely be the result of vehicle noise and talking, as the distance from peak event areas would likely preclude loud outbursts of spontaneous celebration.

Table 5.7-8 of the EIR on pages 5.7-45 to 5.7-46 presents modeled roadway noise increases associated with predicted increases in traffic determined in the transportation analysis in Section 5.6 of the EIR. The table presents data for roadways in San Francisco, but omits data for the two roadways in Marin County that were assessed in the transportation section of the EIR. In response to Comment A-MCCDA-06, the EIR text in Table 5.7-8 on page 5.7-45 is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

TABLE 5.7-8 [REVISED]
MODELED AC34 TRAFFIC LDN NOISE LEVELS FOR 2013

Roadway Segment	Existing	Existing plus Proposed AC34 Project	dBA Difference	Significant Increase?
Weekday PM Noise Levels				
Alexander Avenue from Bunker Road to U.S. 101	63.6	63.8	+0.2	No
Alexander Avenue from East Road to Edwards Avenue	62.7	63.2	+0.5	No
Weekend Midday Peak Noise Levels				
Alexander Avenue from Bunker Road to U.S. 101	64.9	66.2	+1.3	No
Alexander Avenue from East Road to Edwards Avenue	62.6	64.1	+1.5	No

This text change does not alter the findings of significance for noise impacts, either prior to or after mitigation. As indicated by the data in this table, neither of these Marin County roadway segments would experience a significant increase in roadway noise as a result of AC34 operations in either the weekday PM or the weekend midday scenarios.

12.12.7 Noise Impacts at Sensitive Receptors at Crissy Field [NO-6]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

O-GGNPC-12

- The EIR does not account for noise impacts on Crissy Field Center, a sensitive receptor. The center is susceptible to amplified sound from the hospitality/exhibition/media site, which would draw major crowds and require generators, and sound from the Crissy Field airfield. [O-GGNPC-12]

Response NO-6

As an educational center, Crissy Field Center would be considered similar to a school land use and a sensitive receptor with respect to noise. Crissy Field Center is located at the eastern end of the Crissy Field area and adjacent to facilities proposed in the Crissy Field East Venue Plan presented in Figure 3-21, page 3-56, of the EIR. As described in the Draft EIR, the primary VIP/hospitality/media area of the East Venue would be located approximately 1,000 feet from Crissy Field Center, and a secondary hospitality/exhibition/media area would be located in the existing parking area approximately 200 feet from Crissy Field Center. Please see Chapter 11, regarding proposed changes to the site plan at the Crissy Field East Venue under the AC34 Project Variant, which would re-locate the secondary hospitality/exhibition/media center to the northwest, farther away from Crissy Field Center. Other elements of the East Venue Plan include restrooms, merchandising, and exhibition area parking and bench seats. Noise generated by these venue elements would primarily be the result of spectator voices, likely at the seating areas or the hospitality tents. No stage areas are proposed for the East Venue. A stage would be located in the West Venue as indicated in Figure 3-20, page 3-55, of the EIR. Please refer to Response NO-3 above for a discussion of potential amplified sound impacts on Crissy Field Center from this stage area of the West Venue Plan.

Noise impacts from construction of spectator venues are addressed in Section 5.7.3.3, page 5.7-32 of the EIR. Proposed bleacher seating tents/canopies would require construction activities consisting of truck deliveries of materials and low-impact construction equipment (e.g., forklifts and power tools) to erect bleachers and tented structures. Use of heavy-duty off-road diesel equipment is not anticipated. Consequently, construction activities at these spectator areas would reasonably be expected to conform to the San Francisco Noise Ordinance and would result in a less-than-significant construction noise impact.

There are three generators currently proposed for the Crissy Field area. If all three of these generators were to be located in the Crissy Field East Venue area, they would have the potential to result in significant noise impacts at Crissy Field Center. However, it is likely that either the largest of these generators or two of the three generators would be located in the West Venue area to provide power for the stage and concession areas. Regardless, to provide this clarification, Mitigation Measure M-NO-2a, on page 5.7-37, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> **Mitigation Measure M-NO-2a: Selection, Shielding or Acoustical Enclosures for Generators at Piers 27-29 and Marina Green and Use of Electrical Service at Piers 27-29**
>
> At Piers 27-29, ~~T~~the AC34 project sponsor shall use utility electricity in lieu of generators, if available; if electricity requirements exceed available power, the AC34 project sponsor shall use generators. The AC34 project sponsor shall provide shielding or acoustical enclosures for generators at Piers 27-29 and the Marina Green. Specification sheets for generators indicate that Level 1 sound enclosures will dampen noise levels by 5 dBA for the size of generators proposed ~~for Piers 27-29~~. Additionally, the project sponsor shall achieve a performance standard of 60 dBA at the Crissy Field Center when educational activities are in progress.
>
> *Analysis of Mitigation Measure.* Implementation of this would reduce the overall noise increase experienced at the nearest sensitive receptor from Piers 27-29 from 8.3 to 4.6 dBA. The noise increase experienced at the nearest sensitive receptor to Marina Green would be reduced from 8.1 to 4.4 dBA. Consequently, with mitigation, ambient noise levels at the nearest residential receptor would be less than 5 dBA above ambient levels during operation of generators. Additionally, exterior generator noise contributions at Crissy Field Center would be maintained below 60 dBA by restricting the proximity and number of generators in the East Venue area.

These revisions do not alter the findings of significance for noise impacts, either prior to or after mitigation.

12.12.8 Suggested Noise Mitigation Measures and Cumulative Noise Impacts [NO-7]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-228	O-ACEC-229	O-ACEC-230	I-Blum-01

- The EIR fails to evaluate the cumulative effect on neighborhoods from helicopter noise, event crowd noise, amplified sound, vibrations due to ship motors, air horns, and traffic. Noise levels should be compared to benchmark existing noise levels. [O-ACEC-228]
- ACEC provides a list of proposed additional mitigations relating to loudspeakers, motorbikes, motorcycles amplified exhaust, muffler systems, air horns on vehicles, and aviation. [O-ACEC-229]
- ACEC provides a list of proposed additional mitigations relating to baseline noise levels, noise monitoring, cumulative noise levels, and baffling to shield neighborhoods. [O-ACEC-230]
- Cumulative noise and vibration from helicopters, motors, and generators of spectator and official boats, air horns, cars, motorcycles, and other motorized vehicles would be funneled uphill into nearby San Francisco neighborhoods. [I-Blum-01]

Response NO-7

Mitigation measures to reduce impacts from amplified sound are provided in Mitigation Measure M-NO-2b on page 5.7-37 of the EIR. This measure provides for allowing the Event Authority to sponsor events until 11:00 p.m., as proposed, and still comply with the City's fixed residential interior noise limits, which have more stringent limits for the hour between 10:00 p.m. and 11:00 p.m. It also provides for maintaining speaker directions away from sensitive receptors. It also establishes a mechanism for controlling volume levels directly through amplifier control rather than indirectly through baffles or barriers.

Noise limits on motor vehicles and motorcycles are established by California Vehicle Code Division 12 Chapter 5, Article 2.5. It is not within the purview of the AC34 project sponsors to put further restrictions on vehicle noise. These regulations may be enforced by the San Francisco Police Department as well as state and federal law enforcement agencies. In addition, the Public Safety Plan would address requirements for increased public services that are outside the scope of what is required to be analyzed in the EIR.

Helicopter noise impacts are addressed on pages 5.7-41 through 5.7-43 of the EIR and in Response NO-4, above. As stated on page 5-7-43, Title 21 of the State Aeronautics Act provides that areas exposed to aircraft noise levels less than 65 dB CNEL are acceptable for residential and other noise-sensitive land uses. On a typical day during the AC34 events in 2012 and 2013, helicopter operations would not generate noise levels equal to or greater than 65 dB CNEL over any noise-sensitive land use in proximity to the race course circuit.[3] Consequently, helicopter noise would have a less-than-significant impact on human receptors, and no mitigation is required.

Helicopter noise impacts on wildlife are addressed in Section 5.14, Biological Resources, of the EIR and in Section 12.19, Response BIU-4, of this Comments and Responses document. As stated on page 5.14-104 in Section 5.14, Biological Resources, low-flying helicopter operations would result in potentially significant impacts on seals, sea lions, and humpback whales if these animals are present in the project area during the AC34 2012 and 2013 racing events. Consequently, the EIR identifies Mitigation Measure M-BI-14 (Restrictions on Low-Flying Aircraft) to reduce potential impacts to less-than-significant levels. The Water and Air Traffic Plan would also put limitations on the altitude and lateral extent of helicopter operations.

As described in Section 5.7.12 of the EIR (pages 5.7-4 to 5.7-12), to support the noise analysis in the EIR, noise monitoring was conducted at two locations in the Telegraph Hill area: 101 Lombard to represent the conditions in the flat area at the base of the hill, and 218 Filbert Street to represent an elevated noise environment on Telegraph Hill. These locations are approximately 750 and 900 feet from the Pier 27 waterfront, respectively, and noise data are presented in Table 5.7-2 on page 5.7-7 of the EIR. The top of Telegraph Hill is approximately 1,500 feet from the Northeast Waterfront, so locations at a distance of one mile (5,280 feet) would be well beyond and shielded by Telegraph

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[3] Based on the results of noise modeling, the typical day of operations is represented by the "average annual day," which is a daily average annualized out to 365 days where the evening and nighttime periods are weighted due to the lower levels of ambient noise during those periods.

Hill. The monitored noise environment in North Beach included residences above Ghirardelli Square at Beach and Hyde Streets.

Impacts NO-2 and NO-4 of the EIR, starting on pages 5.7-34 and 5.7-41, respectively, identify significant unavoidable operational noise impacts associated with AC34 traffic noise increases and noise generated by amplified music. Affected areas would include the nearest receptors to Pier 27 in the Telegraph Hill area and Aquatic Park in North Beach. While operations of generators, helicopters, and marine vessels would individually have less-than-significant noise impacts based on the appropriate thresholds for these sources, noise from these additional sources would exacerbate the significant noise increases from traffic and amplified sound identified in the EIR.

There would be no permanent land use installations related to the provisions for the AC34 events, and cumulative operational noise impacts are therefore considered in the EIR with respect to the James R. Herman Cruise Terminal and Northeast Wharf Plaza operations in conjunction with other development in the Pier 27 area in Impact C-NO, page 5.7-56, of the EIR. Application of sound baffling does not represent a viable mitigation for identified significant impacts with respect to noise from motor vehicles. A mitigation measure to reduce impacts from amplified sound is provided in Mitigation Measure M-NO-2b on page 5.7-37 of the EIR. This measure provides for maintaining speaker directions away from sensitive receptors. It also establishes a mechanism for controlling volume levels directly through amplifier control rather than indirectly through baffles or barriers, which have limitations on controlling noise at elevated receptors such as Telegraph Hill.

12.12.9 Long-Term Development – Noise Impacts and Mitigation [NO-8]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-231	O-WW-30	O-WW-31

- The Draft EIR fails to identify noise impacts of long-term development and assumes a less-than-significant impact, when in fact the impact is unknown but potentially significant. [O-ACEC-231]
- Mitigation Measures M-LT-NOa and M-LT-NOb require specific mitigations to be based on future studies, and thus cannot be adequately commented on at this time. [O-WW-30, O-WW-31]

Response NO-8

As described in EIR Section 5.7.3.4, Impact LT-NO, pages 5.7-50 to 5.7-55, both construction and operation of the Port properties subject to possible long-term development under the terms of the Host Agreement would have the potential to generate noise levels that could exceed thresholds or standards indicated in the noise significance criteria. As discussed in EIR Chapter 3, Section 3.4.8, and in Section 12.6, Response IO-5, future long-term development rights are analyzed at a *conceptual* level of detail in this EIR, based on broad conceptual assumptions for possible development in the absence of any site-specific development proposals. This level of analysis is also conducted with the understanding that any such future development plans and uses would be required to undergo further environmental review to comply with CEQA, when site-specific development program details are proposed. The conceptual-level impact analysis for noise determined that both construction and operational noise impacts associated with future long-term development would be less than significant with implementation of identified mitigation measures. Mitigation measures identified for these conceptual-level impacts are presented as a broad suite of mitigation measures to address a wide range of development scenarios, but are based on mitigation measures used for similar developments in San Francisco.

Mitigation Measure M-LT-NOa provides for specific noise-reducing measures to be implemented as a condition of the construction contract. The measures identified in Mitigation Measure M-LT-NOa address construction noise and represent those measures that the City has established as necessary to reduce the temporary impacts associated with construction to less-than-significant levels. This measure also identifies mitigation to protect historic structures adjacent to development sites on Port of San Francisco property that would be at risk from vibrations resulting from pile driving. For the purposes of making a first-level assessment of the potential for structural damage, this mitigation measure designates the Port's Harbor Engineer, as the person most knowledgeable of structural conditions on Port property, to determine whether and to what degree those structures have been seismically retrofitted, and to what degree they might be vulnerable to structural damage. It may well not be necessary for a pre-construction assessment to be prepared for every proposal for which pile driving may be required, and this measure allows the Port the ability to screen a proposal for the necessity of such an assessment. For operational impacts, this measure uses the San Francisco Land Use Compatibility Guidelines for Community Noise as a performance standard for both stationary source impacts and impacts related to exposure of new sensitive receptors. Mitigation Measure M-LT-NOb provides performance standards for measures for any new residential development such as could occur at Seawall Lot 330. See also Section 12.6, Impact Overview, Response IO-5, for further discussion regarding the approach to analyzing impacts associated with future long-term development rights.

As described in EIR Section 5.1, page 5.1-11, when site-specific proposals are developed as a consequence of the future long-term development rights in the Host Agreement, long-term development mitigation measures identified in this EIR would be reevaluated as part of project-specific CEQA review to determine their applicability and effectiveness to address any impacts identified for a site-specific development proposal, and if applicable, the measures would be re-iterated, clarified to be more project-specific, or replaced with equally or more effective measures, if needed. This is not considered deferral of mitigation, since the EIR recognizes the significance of the impact, commits to a range of mitigations known to be feasible, and specifies performance criteria.

12.13 Air Quality

In addition to responding to comments received on the Draft EIR, this section provides an update of portions of the air quality analysis presented in the Draft EIR, Chapter 5, Section 5.8. The updated analysis is a result of the following changes that have occurred subsequent to publication of the Draft EIR: revised project description assumptions; updated methodology for assessing acute health hazards; and updated and augmented mitigation measures. The project updates are described in Chapter 11 of this document as well as in this section. As described below, the updated air quality analysis does not change the significance determinations or impact conclusions presented in the Draft EIR. This section presents the updated air quality analysis first, followed by the overview of comments on air quality, after which the responses to the comments are provided, organized by similar topics. The responses to comments reflect the updated air quality analysis and include the full text of the updated and augmented mitigation measures.

12.13.1 Updated Air Quality Assumptions and Analyses

Summary of Updated Assumptions, Analyses and Results

Subsequent to publication of the Draft EIR, the new information has been made available that has resulted in updates and revisions to the air quality analyses. Details on the following updated information are described later in this section:

- Project description assumptions regarding the numbers and types of spectator boats expected at the AC34 events have been revised based on spectator boat count data collected during the 2011 San Francisco Fleet Week event, substantially reducing the previously assumed number of spectator boats.

- The Event Authority has refined the number of support vessels anticipated to be used for the AC34 event, further reducing the numbers of boats expected at the AC34 events.

- The Bay Area Air Quality Management District (BAAQMD) provided updated guidance regarding the methodology for assessing impacts related to acute health hazards.

- Air quality mitigation measures for both the AC34 and Cruise Terminal projects have been updated and augmented in response to public comments received on the Draft EIR, discussions with the BAAQMD, and coordination by the Port of San Francisco with BAE Systems, the Port's Pier 70 ship repair operator. The updated and augmented mitigation measures include the following:

    - Mitigation Measure M-AQ-2b: Off-Road Construction Equipment
    - Mitigation Measure M-AQ-2c: Off-Road Construction Equipment - Electricity Use
    - Mitigation Measure M-AQ-2d: Off-Road Construction Equipment - Best Management Practices (BMPs)
    - Mitigation Measure M-AQ-2e: Off-Road Construction Equipment - Engine Standards for Harbor Craft Used in Construction

- Mitigation Measure M-AQ-2f: Fuels for Off-Road Construction Equipment
- Mitigation Measure M-AQ-4a: Emission Controls for Race-Sponsored Spectator and Support Vessels
- Mitigation Measure M-AQ-4b: Temporary Shoreside Power for Large Private Yachts at Pier 27
- Mitigation Measure M-AQ-4c: Alternative Low-Emissions Fuels for Large Private Yachts and Race-Sponsored Vessels
- Mitigation Measure M-AQ-4d: Return Pier 27 to the Port Within One Month after Completion of the Match for Reconnection of Shoreside Power
- Mitigation Measure 4e: Long-term Shoreside Power at Pier 70
- Mitigation Measure M-AQ-5: Clean Diesel Clean Sources for Temporary Power at Venues

As a result of the updates and revision to project description assumptions, methodology for assessing acute health hazard, air quality mitigation measures, the severity of several impacts would be substantially lessened compared to those presented in the Draft EIR. Most notably, under the revised analysis and with implementation of updated and augmented mitigation measures, regional significant air quality impacts due to emissions of oxides of nitrogen (NOx) and particulate matter (both PM_{10} and $PM_{2.5}$) resulting from operation of the AC34 events could be reduced to below significance thresholds of the Bay Area Air Quality Management District (BAAQMD). While emissions of reactive organic gases (ROG) would continue to exceed BAAQMD thresholds and continue to result in a significant and unavoidable regional air quality impact for operations of the AC34 events, the combination of revised project description assumptions and implementation of all updated and augmented mitigation measures could result in the offset of all emissions associated with the decommissioning of shoreside power for 2012 and 2013. Furthermore, health risk impacts associated with AC34 construction-related emissions could be reduced to less than significant with mitigation using the revised BAAQMD methodology. In addition, the regional significant air quality impacts due to NOx emissions resulting from construction of the Cruise Terminal project could be reduced to less than significant with implementation of updated and augmented mitigation measures. These three impacts were all determined to be significant and unavoidable even with mitigation in the Draft EIR, and due to feasibility uncertainties related to some of the updated mitigation measures, the significance conclusions remain unchanged in the Final EIR.

This section first describes the new information that has been made available since publication of the Draft EIR, followed by the results of the revised air quality analysis and the associated text changes to the Draft EIR. The updated and augmented mitigation measures are presented in Section 12.13.7 as part of Response AQ-5, and that section includes a post mitigation assessment of each of the affected impacts. Appendices AQ-2A and AQ-3A provide the supporting air quality assumptions and calculations for the updated analyses.

Updated Air Quality Assumptions

Small Recreational Vessel Assumptions

The Draft EIR presented estimates of recreational spectator vessels that would be expected to be present on the Bay during the AC34 2012 and 2013 events (see Appendix PD-1, Figure 7). This estimate was based on best available data at that time, but now appears to be excessively conservative. As described in Chapter 11, this estimate has since been updated with current data, including boat counts on San Francisco Bay during Fleet Week events in October 2011. For the AC34 2013 event, the estimated number of recreational boats during an average peak weekend day has been reduced from 2,200 to 800, of which 80 percent (640 boats) are expected to be sailboats, 19 percent (152 boats) motorized pleasure craft, and 1 percent (8 boats) non-motorized craft; for an average weekday event, the estimate is reduced from 730 to 134 boats, with the same percentage breakdown of the types of boats. For the AC34 2012 event, the estimated number of recreational boats during an average peak weekend day has been reduced from 1,833 to 332, and for an average weekday event, the estimate is reduced from 633 to 125 boats, again with the approximate same distribution of the types of recreational boats as would occur in 2013. Based on an average estimated usage derived from these revised numbers and types of recreational spectator boats, the estimated emissions from small private vessels were also revised.

Support Vessel Assumptions

For purposes of evaluating air quality and related health risks associated with the operation of AC34 support boats during the AC34 event in the Draft EIR, the Event Authority conservatively estimated that up to 70 total race support boats could be utilized on peak days during AC34 2012 event and up 125 boats could be utilized during the AC34 2013 event. These boats were assumed to operate with a standardized mix of available engine types.

Since publication of the Draft EIR, the Event Authority has refined the number of support boats anticipated to be utilized for the AC34 event. The Event Authority now estimates that no more than 43 total race support boats would be utilized on peak days during the AC34 2012 event and no more than 65 race support boats would be utilized on peak days during the AC34 2013 event. The Event Authority also provided refined detail on the support boats that would be utilized in terms of type, size, and engine horsepower. All race support vessels with diesel engines would be Tier 2 engines (the cleanest engines currently available; Tier 3 engines are not available at this time). For the purposes of the air quality analysis, all race support vessels with spark ignition engines (gasoline) are assumed to have 2010 model year engines that meet current standards.

Cruise Terminal Port Call Assumptions

Since the publication of the Draft EIR, the Port of San Francisco has provided information on the expected number of calls by shoreside power capable ships, based on confirmed bookings for 2012. As described in Chapter 11, the number of shoreside power capable ships used in the Draft EIR were based on 2011 cruise ship data and scaled to assume a maximum of 80 call. Thus, the estimated number used in the updated emissions analysis is increased from 17 to 40 cruise ships for the years 2012, 2013, and 2014, based on actual Port bookings for 2012 of shoreside power-capable vessels that could be connected to the Pier 27 shoreside power facility. This would represent an increase in hoteling emissions compared to that presented in the Draft EIR. See Appendix AQ-4 for further description of cruise ship assumptions used in the air quality analysis; this new appendix is included with the Final EIR to augment the information in the Draft EIR.

Updated Criteria Pollutants and Precursors Analysis

As a staff-initiated change, emission data in Table 5.8-7 (page 5.8-33), Table 5.8-9 (page 5.8-46), Table 5.8-12 (page 5.8-55), and Table 5.8-13 (page 5.8-55) of the Draft EIR are revised as indicated below to reflect the revised assumptions for spectator vessels and cruise ship port calls (deleted text is shown as ~~strikethrough~~ and new text is underlined). While this text change results in a reduction in the severity of predicted regional criteria pollutant impacts from AC34 operations (PM_{10} and $PM_{2.5}$ impacts would now be below BAAQMD thresholds), it does not alter the findings of significance for air quality impacts, either prior to, or after mitigation, as discussed further in Response AQ-5, below.

Updated Methodology for Assessing Acute Health Hazards Impacts and Updated Analysis for AC34 Construction Impacts

In November 2011, subsequent to the publication of the Draft EIR, the BAAQMD provided updated guidance regarding the methodology for assessing acute health hazards. The revised methodology, also consistent with direction from the California Air Resources Board (ARB),[1] does not recommend analyzing the acute health hazards associated with acrolein in diesel particulate matter (DPM) because these emissions factors are uncertain. Until sampling methods for determining acrolein emissions factors improve, both the ARB and BAAQMD do not recommend analyzing the associated acute health hazards from this constituent of diesel exhaust.[2]

Review of the results from the acute health hazards analysis indicate that approximately 65 percent of the acute hazard index is due to acrolein, a toxic air contaminates found in diesel exhaust. Removing acrolein from the analysis would result in a roughly proportional reduction in the estimated acute health risks. Revising the analysis for acute health risks would have the greatest effect on Impact AQ-3, AC34 construction related health risks (see Draft EIR pages 5.8-29 to 5.8-31). The Draft EIR found that AC34 construction activities would result in less than significant impacts with respect to excess cancer risks, chronic hazard index, and annual average

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[1] ARB indicates "[u]sers should be aware that the sampling method puts the acrolein emission factors in doubt and until we resolve this issue, the ARB does not recommend using these emission factors." http://www.arb.ca.gov/ei/catef/catef.htm.

[2] Lau, Virginia, Bay Area Air Quality Management District, Email to Michael Keinath, ENVIRON, dated November 22, 2011, regarding short term acrolein impacts from construction.

TABLE 5.8-7 [REVISED]
AC34 AVERAGE DAILY AND MAXIMUM ANNUAL OPERATIONAL EMISSIONS

	Average Daily Emissions (pounds/day)			
	ROG	**NOx**	**PM10**	**PM2.5**
Race Operations				
Race Sponsored Vessels	9	102	4	4
Race Support Vessels	~~875~~285	~~104~~122	~~155~~2	~~143~~2
Small Private Vessels	~~1,272~~161	~~198~~15	~~212~~8	~~195~~8
Large Private Vessels	22	244	10	10
Assist Tugs	0	1	0	0
Other Sources[a]	21	174	5	5
Shoreside Power Temporary Decommissioning (2013)	~~4~~8	~~94~~221	~~2~~6	~~2~~6
Overall Spectator Traffic	30	62	4	4
Total Overall (2012+2013)	~~2,233~~536	~~979~~941	~~392~~39	~~362~~39
BAAQMD Threshold	54	54	82	54
Above Threshold?	Yes	Yes	~~Yes~~No	~~Yes~~No

	Maximum Annual Emissions (short tons/year)			
	ROG	**NOx**	**PM10**	**PM2.5**
2012 Race Operations				
Race Sponsored Vessels	1	6	0	0
Race Support Vessels	11~~37~~	5~~4~~	0~~6~~	0~~6~~
Small Private Vessels	8~~83~~	1~~12~~	0~~13~~	0~~12~~
Large Private Vessels	0	0	0	0
Assist Tugs	0	0	0	0
Other Sources[a]	1	8	0	0
Spectator Traffic	2	4	0	0
2012 Total	23~~124~~	24~~35~~	1~~20~~	1~~18~~
BAAQMD Threshold	10	10	15	10
Above Threshold?	Yes	Yes	No~~Yes~~	No~~Yes~~
2013 Race Operations				
Race Sponsored Vessels	1	17	1	1
Race Support Vessels	53~~157~~	22~~19~~	1~~28~~	1~~26~~
Small Private Vessels	28~~200~~	3~~32~~	1~~34~~	1~~31~~
Large Private Vessels	5	54	2	2
Assist Tugs	0	0	0	0
Other Sources[a]	4	31	1	1
Shoreside Power Temporary Decommissioning (2013)	~~1~~2	~~21~~49	~~0~~1	~~0~~1
Spectator Traffic	5	10	1	1
2013 Total	~~372~~98	~~183~~176	8~~67~~	8~~62~~
BAAQMD Thresholds	10	10	15	10
Above Threshold?	Yes	Yes	No~~Yes~~	No~~Yes~~

NOTES:

BAAQMD = Bay Area Air Quality Management District

[a] Other sources include boat lifts, generators, helicopters, and truck trips.

SOURCE: ENVIRON, 2011

TABLE 5.8-9 [REVISED]
PHASE 2 CRUISE TERMINAL AND WHARF PLAZA AVERAGE DAILY CONSTRUCTION-RELATED EMISSIONS

	Average Daily Construction Emissions (pounds/day)			
	ROG	**NOx**	**PM10**	**PM2.5**
Cruise Terminal				
Building interior construction	18	32	2	2
Shoreside power decommissioning; 2012	~~4~~ 10	~~114~~ 270	~~2~~ 8	~~2~~ 7
Total	~~22~~ 28	~~146~~ 302	~~4~~ 10	~~4~~ 9
BAAQMD Threshold	54	54	82	54
Above Threshold?	No	Yes	No	No

SOURCE: ESA, 2011

TABLE 5.8-12 [REVISED]
AC34 AVERAGE DAILY CONSTRUCTION-RELATED EMISSIONS UNDER THE PIER 27 SHED VARIANT

	Average Daily Emissions (pounds/day)			
	ROG	**NOx**	**PM10**	**PM2.5**
Cruise Terminal Phase 1				
Demolition at Piers 27-29	0.2	1	0	0
AC34 Race				
AC34 race construction	8	66	3	3
Temporary decommissioning of shoreside power; 2013	~~3~~7	~~78~~185	~~1~~5	~~1~~5
Total	~~11~~15	~~146~~252	~~5~~8	~~5~~8
BAAQMD Threshold	54	54	82	54
Above Threshold?	No	Yes	No	No

SOURCE: ENVIRON, 2011

TABLE 5.8-13 [REVISED]
CRUISE TERMINAL AND NORTHEAST WHARF PLAZA AVERAGE DAILY CONSTRUCTION-RELATED EMISSIONS UNDER THE PIER 27 SHED VARIANT

	Average Daily Emissions (pounds/day)			
	ROG	**NOx**	**PM10**	**PM2.5**
Cruise Terminal Phase 2				
Shell construction at Piers 27-29	23	127	9	9
Building interior construction	18	32	2	2
Shoreside power temporary decommissioning 2014	~~4~~19	~~114~~268	~~2~~5	~~2~~5
Total	~~45~~50	~~273~~493	~~13~~16	~~13~~9
BAAQMD Threshold	54	54	82	54
Above Threshold?	No	Yes	No	No

SOURCE: ENVIRON, 2011; ESA 2011

$PM_{2.5}$ concentrations. However, the acute hazard index was estimated at 10, approximately 10 times greater than the acute hazard index threshold of 1.0. Given that approximately 65 percent of the acute hazard index is attributable to acrolein, removing acrolein from the analysis would result in a proportional reduction to the acute hazard index, or an acute hazard index of 3.4. While substantially reduced, the revised hazard index would still exceed the BAAQMD threshold of 1.0, and therefore does not alter the significance conclusions in the EIR. However, as explained in Section 12.13.7 in Response AQ-5, implementation of all AC34 construction mitigation measures (Mitigation Measures M-AQ-2a to M-AQ-2f) could result in an 80 percent reduction in the estimated hazard index, resulting in a mitigated acute hazard index of 0.7, which would be below the BAAQMD's threshold of 1.0. Given the degree of uncertainty in implementing all or portions of the identified mitigation measures, as further discussed in Section 12.13.8, Response AQ-6, this impact would remain significant and unavoidable. Therefore, while the updated methodology for analyzing the acute hazard index would reduce the severity of the impact identified in the EIR, it would not alter the significance findings in the EIR either prior to, or after mitigation.

The revised methodology for the acute hazard index would similarly result in a lower acute hazard index for AC 34 operations (Impact AQ-5, pages 5.8-35 to 5.8-38), the Cruise Terminal construction (Impact AQ-12, page 5.8-47) and operation (Impact AQ-15, pages 5.8-50 to 5.8-51), however any revised estimate of the acute hazard index would not change the significance findings in the EIR either prior to, or after mitigation. With respect to AC 34 operations (Impact AQ-5), the revised methodology would result in a reduction in the acute hazard index, perhaps to levels below the BAAQMD's threshold of 1.0. However, excess cancer risk and annual average $PM_{2.5}$ concentrations would still be exceeded, resulting in a significant impact with respect to exposing sensitive receptors to substantial concentrations of toxic air contaminates. Additionally, the EIR found health risk impacts associated with the Cruise Terminal to be less than significant. While the acute hazard index reported in the EIR may be overstated given the revised methodology for estimating acute hazards, the EIR found acute hazards to be less than significant and therefore, any revision to these estimates would not alter the significance finding in the EIR.

Updated Risk and Hazards Analysis

As a staff-initiated text change, data in Table 5.8-6 (page 5.8-30), Table 5.8-8 (page 5.8-36), Table 5.8-10 (page 5.8-48), and Table 5.8-11 (page 5.8-50) of the Draft EIR are revised as indicated below to reflect the revised assumptions for spectator vessels and cruise ship port calls and revised BAAQMD methodology (deleted text is shown as ~~strikethrough~~ and new text is underlined). With the exception of resulting in a reduction in the operational concentration of $PM_{2.5}$ for residential receptors to a less than significant value as indicated in revised Table 5.8-8, these text changes do not alter the findings of significance for air quality impacts, either prior to, or after mitigation, as discussed further below in Response AQ-5.

TABLE 5.8-6 [REVISED]
MAXIMUM LIFETIME EXCESS CANCER RISK, CHRONIC AND ACUTE NON-CANCER HAZARD QUOTIENT, AND PM2.5 CONCENTRATIONS FOR AC34 CONSTRUCTION

Endpoint	**AC34 Construction**	**BAAQMD Threshold**
Residential Receptors		
Lifetime Excess Cancer Risk[a]	4.0	10
Chronic Hazard Index[a]	0.007	1
Acute Hazard Index[a,b]	3.4~~10~~	1
$PM_{2.5}$ Concentration[a] [μg/m^3]	0.03	0.3

NOTES:
BAAQMD = Bay Area Air Quality Management District; μg/m3 = micrograms per cubic meter;
PM = particulate matter

[a] The location of each maximum may not be in the same location, therefore values are not additive.

[b] Since construction and operational activities would not be occurring at the same time, the acute hazard index should not be added across categories.

SOURCE: ENVIRON, 2011

TABLE 5.8-8 [REVISED]
MAXIMUM LIFETIME EXCESS CANCER RISK, CHRONIC AND ACUTE NON-CANCER HAZARD QUOTIENT, AND PM2.5 CONCENTRATIONS FOR AC34 OPERATIONS AND 2013 LOSS OF SHORESIDE POWER

Endpoint	**Operational**	**BAAQMD Threshold**
a) Residential Receptors		
Lifetime Excess Cancer Risk[a]	15~~22~~	10
Chronic Hazard Index[a]	0.04~~0.12~~	1
Acute Hazard Index[a]	2.4~~3.3~~	1
$PM_{2.5}$ Concentration[a] [μg/m^3]	0.2~~2.8~~	0.3
b) All Receptors (Residential and Spectator)		
Lifetime Excess Cancer Risk[a]	63~~72~~	10
Chronic Hazard Index[a]	0.16~~0.3~~	1
Acute Hazard Index[a,b]	2.5~~3~~	1
$PM_{2.5}$ Concentration[a] [μg/m^3]	0.7~~3.7~~	0.3

NOTES:
BAAQMD = Bay Area Air Quality Management District; μg/m3 = micrograms per cubic meter;
PM = particulate matter

[a] The location of each maximum may not be in the same location, therefore values are not additive.

SOURCE: ENVIRON, 2011

TABLE 5.8-10 [REVISED]
MAXIMUM LIFETIME EXCESS CANCER RISK, CHRONIC AND ACUTE NON-CANCER HAZARD QUOTIENT, AND PM$_{2.5}$ CONCENTRATIONS FOR CRUISE TERMINAL AND ~~2013~~ 2012 LOSS OF SHORESIDE POWER

Endpoint	Cruise Terminal Construction	Impact from Loss of Shoreside Power (2012)	Total Risks and hazards (Construction and additional year of Shoreside Power Loss)	BAAQMD Threshold
Residential Receptors				
Lifetime Excess Cancer Risk	0.5	0.68~~0.63~~	1.2~~1.1~~	10
Chronic Hazard Index	0.001	0.002~~0.001~~	0.003~~0.002~~	1
Acute Hazard Index	0.46~~0.1~~	- - [a]~~a0.25~~	0.46~~0.35~~	1
PM$_{2.5}$ Concentration [μg/m^3]	0.005	0.008	0.013	0.3

NOTES:
BAAQMD = Bay Area Air Quality Management District; μg/m3 = micrograms per cubic meter; PM = particulate matter
a Acute hazard is based on maximum 1-hr emissions. These would not change relative to the baseline year (2011) in 2012 (i.e. one vessel at Pier 27 and one vessel at Pier 35, both hotelling without shorepower, same emission factors for both years).
SOURCE: ENVIRON, 2011

TABLE 5.8-11 [REVISED]
MAXIMUM LIFETIME EXCESS CANCER RISK, CHRONIC AND ACUTE NON-CANCER HAZARD QUOTIENT, AND PM$_{2.5}$ CONCENTRATIONS FOR CRUISE TERMINAL

Endpoint	Cruise Terminal Operation	BAAQMD Threshold
Residential Receptors		
Lifetime Excess Cancer Risk	3.6~~4.1~~	10
Chronic Hazard Index	0.002~~0.001~~	1
Acute Hazard Index	0.3~~0.2~~	1
PM$_{2.5}$ Concentration [μg/m^3]	0.006~~0.01~~	0.3

NOTES:
BAAQMD = Bay Area Air Quality Management District; μg/m3 = micrograms per cubic meter; PM = particulate matter

SOURCE: ENVIRON, 2011

Table 5.8-8 presents the incremental cancer risk, the acute hazard index, and PM$_{2.5}$ concentrations associated with AC34 operations, the first two ~~all~~ of which would exceed BAAQMD thresholds as a result of AC34 operational emissions. Additional details regarding the location and magnitude of predicted health risks during AC34 operations are included in a series of example tables in Appendix AQ-2.

Specifically, the estimated values for the maximum exposed individual (MEI) spectators would be an increase in incremental cancer risk of 72 in one million, relative to a threshold of 10 in one million; and an acute hazard index of 3.3 in one million, relative to an acute hazard index threshold of 1~~and a predicted PM$_{2.5}$ concentration of 3.7 ug/m^3 relative to a PM$_{2.5}$~~

~~threshold of 0.3 ug/m^3~~. The MEIs for each of these risk values are not in the same location as different sources (marine vessels vs. boat lifts) are not equally distributed. The corresponding values for the resident-MEIs are 22 in a million, an acute hazard index of 3.3, and PM2.5 concentration of 2.8 ug/m^3, respectively. The predominant source contributing to these relatively high risk values are off-road equipment (such as boat lifts), marine vessels, and gasoline-powered boats. No receptors would be exposed to a ~~exceed the~~ chronic hazard index above the threshold of 1.

AC34 operations are predicted to exceed BAAQMD risk and hazard criteria for incremental cancer risk, and acute hazard indices and would therefore represent a significant impact on local receptors. Construction and operations of AC34 (as well as the cruise terminal) would require the permanent relocation of existing tenants. Of the existing tenants at Pier 27, only Bauer Transportation would represent a localized pollutant source as the result of operations of diesel-powered transport vehicles. The relocation of the Bauer Transportation facility from Pier 27 to Pier 50 would reduce diesel emissions and their associated risks for receptors in the vicinity of the site of Pier 27, though it would increase emissions in the vicinity of Pier 50. Risks associated with both locations were modeled in AERMOD assuming 50 round trips per day. Removal of the facility at Pier 27 would result in a net decrease of emissions; hence it would not result in additional cancer risks. Based on the analysis, Bauer Transportation operations emissions in its new location generate a localized cancer risk of 5.1 in one million, an acute hazard index of 0.01, a chronic hazard index of 0.001, and $PM_{2.5}$ concentrations of 0.006, which are below the BAAQMD's project level thresholds at the maximally exposed sensitive receptor.

Impact Summary

Based on conservative assumptions, operations of the proposed America's Cup races and events would result in incremental cancer risks, and acute hazard indices~~, and localized $PM_{2.5}$ concentrations~~ in excess of significance thresholds adopted by the BAAQMD and would represent a significant impact on localized air quality. **Mitigation Measure M-AQ-4** (Emission Controls for Race-Sponsored Spectator Vessels) would reduce emissions from race-sponsored vessels, and **Mitigation Measure M-AQ-5** (Clean Diesel Engines for Temporary Power), below, would reduce emissions from diesel generators. However, identified mitigation measures would not reduce the predicted impact to a less-than-significant level, and therefore, the impact would be *significant and unavoidable with mitigation.*

In addition, the text in Impact AQ-20, page 5.8-56, regarding cancer risk and hazard impacts from the decommissioning of shoreside power in 2014 under the Pier 27 Shed Variant and attributed to construction activities under the Pier 27 Shed Variant is revised to reflect the increased assumption in the number of shoreside power-capable cruise ship calls. The second paragraph under Impact AQ-20 on page 5.8-56 of the Draft EIR is revised as indicated below (deleted text is shown as ~~strikethrough~~ and new text is underlined). This text change does not alter the findings of significance for air quality impacts, either prior to, or after mitigation, as discussed further in Response AQ-5, below.

The additional year of shore side power decommissioning that would occur in this variant would result in an additional localized cancer risk of 1.8~~0.63~~ in one million, an acute HI of 0.25, a chronic HI of 0.01~~0.001~~, and $PM_{2.5}$ concentration~~s~~ of 0.04~~0.008~~, which by themselves would be below the BAAQMD's project level thresholds at the maximally exposed sensitive receptor. Even with implementation of **Mitigation Measure M-AQ-2a** (Construction Vehicle Emissions Minimization) and **Mitigation Measure M-AQ-2b** (Off-Road Construction Equipment), this variant would result in an incremental increase in the acute hazard index compared to the proposed AC34 and Cruise Terminal projects which would further exceed the acute health index threshold of 1. Therefore, this impact would be *significant and unavoidable*.

12.13.2 Overview of Comments on Air Quality

The comments and corresponding responses in the following sections cover topics in Chapter 5, Section 5.8, Air Quality, of the EIR. These include topics related to:

- AQ-1, Use of BAAQMD CEQA Guidelines in Air Quality Assessment
- AQ-2, Impacts of Decommissioning of Shoreside Power
- AQ-3, AC34 Events Risk and Hazard Analysis Sources and Assumptions
- AQ-4, Cruise Ship Terminal Air Quality Impacts
- AQ-5, Updated and Augmented Air Quality Mitigation Measures
- AQ-6, Feasibility Determination of Proposed Air Quality Mitigation
- AQ-7, People Plan and Sustainability Plan
- AQ-8, Cumulative Air Quality Impacts
- AQ-9, Air Quality Impacts of Proposed Transportation Mitigation Measures

12.13.3 Use of BAAQMD CEQA Guidelines in Air Quality Assessment [AQ-1]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-WW-32 O-WW-33

- The EIR is unable to support its claim that criteria pollutant emissions up to the BAAQMD significance threshold are not cumulatively significant. [O-WW-32]

- The use of BAAQMD thresholds is erroneous because the EIR uses BAAQMD thresholds without exercising independent judgment, and the BAAQMD CEQA Guidelines do not justify their emission thresholds. [O-WW-32]

Response AQ-1

The analysis contained in the EIR to assess air quality impacts relies primarily on guidance documents published by the Bay Area Air Quality Management District (BAAQMD), the regional agency responsible for air quality regulation within the San Francisco Bay Area Air Basin, as described in Section 5.8.2.3, pages 5.8-15 to 5.8-16, and in Section 5.8.3.1, pages 5.8-17 to 5.8-20.

The BAAQMD published *California Environmental Quality Act Air Quality Guidelines* in June of 2010 and revised it in May of 2011, three months prior to issuance of the Draft EIR. Consequently, by relying on these documents, the guidance and approach to analysis used in the Draft EIR represents an up-to-date and jurisdiction-specific method for assessing air quality impacts in the San Francisco Bay Area Air Basin.

Pages 2-4 and 2-6 of this BAAQMD document provide thresholds of significance for operational and construction-related impacts for criteria air pollutants and precursors, including the threshold for emissions of oxides of nitrogen (NOx) of 54 pounds per day average daily emissions for both construction- and operational-related emissions.

The criteria pollutant BAAQMD significance thresholds are supported by substantial evidence which is presented in its *CEQA Air Quality Guidelines* document in *Appendix D:Threshold of Significance Justification*. As stated in this document, "these thresholds represent the levels above which a project's individual emissions would result in a considerable contribution (i.e., significant) to the air basin's existing non-attainment air quality conditions and thus establish a nexus to regional air quality impacts that satisfies CEQA requirements for evidence-based determinations of significant impacts." The document further indicates that "These thresholds are based on the federal BAAQMD Offset Requirements to ozone precursors for which the San Francisco Bay Area Air Basin is designated as a non-attainment area which is an appropriate approach to prevent further deterioration of ambient air quality and thus has nexus and proportionality to prevention of a regionally cumulative significant impact."

BAAQMD guidance and significance thresholds for assessing air quality impacts relative to CEQA are not a regulatory standard, but rather, as stated on page 1-1 of its *CEQA Air Quality Guidelines*, provide BAAQMD-recommended procedures for evaluating potential air quality impacts of projects in the San Francisco Bay Area Air Basin during the environmental review process consistent with CEQA requirements. The San Francisco Planning Department, as lead agency for CEQA environmental review in San Francisco, has established as standard practice to follow the guidance provided by BAAQMD for determining thresholds of significance for air quality impacts, and this EIR has been prepared consistent with this standard practice.

12.13.4 Impacts of Decommissioning of Shoreside Power [AQ-2]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-BAAQMD-01
A-BAAQMD-02
A-BAAQMD-03
O-ACEC-233
O-ACEC-234
O-ACEC-235
O-ACEC-241
O-ACEC-242
O-NRDC-05
O-NRDC-24
O-TIRN1-03
O-TIRN2-08
O-TIRN2-14
O-TIRN2-17
O-TIRN2-18
O-TIRN2-19
O-TIRN2-25
O-TIRN2-44
O-TIRN2-47

- Operational emissions shown on page 5.8-33 should include emissions for both 2012 and 2013. The EIR should either justify its emissions estimate of 22 tons per year or adopt BAAQMD's calculation of 32 tons per year. [A-BAAQMD-01]
- In Table 5.8-13, the Pier 27 Shed Variant should estimate cruise ship emissions for three years instead of two. [A-BAAQMD-02]
- BAAQMD recommends not decommissioning shoreside power so that the electrification contract between BAAQMD and the Port can be fulfilled and to avoid air pollutant emissions. [A-BAAQMD-03]
- Cruise ship emissions data in Appendix AQ must be reevaluated and compared with estimates by air quality regulators to ensure accuracy. The EIR also fails to account for the loss of shoreside power emissions reductions due to cruise terminal construction. [O-ACEC-233, O-TIRN2-17, O-TIRN2-19]
- The EIR should clarify the number of expected ship calls that its emissions projections are based on, and analyze the potential for shoreside power to remain unavailable in 2014. [O-ACEC-234, O-TIRN2-18, O-ACEC-235, O-TIRN2-18]
- The EIR should describe baseline emissions due to cruise ships and how these emissions will change when shoreside power is shut down. [O-ACEC-241, O-ACEC-242, O-TIRN2-25]
- The EIR does not adequately describe the impacts of decommissioning shoreside power. [O-NRDC-05, O-NRDC-24, O-TIRN2-08]
- Losing shoreside power would create significant air quality impacts to the area that must be mitigated. However, compensating for these emissions will be difficult due to state law and human exposure to air pollution. [O-TIRN2-14]
- It appears that project considered no emission reduction options to counter the emissions increase due to losing shoreside power. This shutdown was planned without sufficient public consultation, and may prevent the City from meeting the terms of the public grants that originally funded shoreside power. [O-TIRN2-44]
- The Port, City, granting agencies and BAAQMD should calculate planned emissions reductions that shoreside power would have achieved, and consider alternative plans that will result in this level of emissions. [O-TIRN2-47]

Response AQ-2

Air Pollutant and Risk/Hazard Impacts from Decommissioning of Shoreside Power

The Port of San Francisco acknowledges the different projections for the number of vessel calls that would connect to the Pier 27 shoreside power facility in the original BAAQMD grant application as well as in the subsequent U.S. Environmental Protection Agency (USEPA) grant. These differences arose from better understanding of the number of vessels equipped with shoreside power capability over time. The Port of San Francisco also acknowledges that the number of assumed shoreside power capable vessels that would no longer be able to connect to shoreside power due to the decommissioning in 2012, 2013, and possibly 2104 in the Draft EIR was inconsistent with the projections in the BAAQMD and EPA grant applications. To correct this, Port staff updated its projections with the actual number of shoreside power-capable ships that have booked with the Port during 2012, which could be berthed at Pier 27 and use the shoreside power facility at this location. Assumptions for 2012, 2013, and 2014 have been updated for the Final EIR based on the provision of new data by the Port of San Francisco as discussed in Section 12.13.1, Updated Air Quality Assumptions, above.

Air quality impacts related to the temporary decommissioning of shoreside power are addressed separately for criteria air pollutant impacts and localized risk and hazard impacts in Section 5.8.3 of the EIR. Under the proposed projects, the decommissioning of shoreside power would occur in 2012 and 2013, with a potential further year of decommissioning in 2014 under the Pier 27 Shed Variant. Because of the interrelationship of the AC34 and Cruise Terminal projects, the emissions associated with the temporary decommissioning of shoreside power are addressed under several impacts in the EIR, depending on the scenario.

Calculations of criteria pollutant impacts from the decommissioning of shoreside power were assigned to either the *construction* of the Cruise Terminal project or to the *operation* of the AC34 events, depending on the year, to avoid double counting of impacts from the two related projects. These scenarios are all included in the EIR analysis, as described below:

- Criteria pollutant impacts from the decommissioning of shoreside power in 2012 are addressed in Impact AQ-10, pages 5.8-45 to 5.8-46, and attributed to the construction of the cruise terminal, as the shell of the cruise terminal would be constructed in 2012 and would serve as the initial impetus for decommissioning of shoreside power. As indicated in Table 5.8-9 on page 5.8-46 of the Draft EIR, decommissioning of shoreside power in 2012 was estimated to result in emissions of 4 pounds per day of reactive organic gases (ROG), 114 pounds per day of NOx, 2 pounds per day each of PM_{10} and $PM_{2.5}$. Per the discussion in Section 12.13.1, Updated Air Quality Assumptions and Analyses, above, the revised estimates presented in this Final EIR are 10 pounds per day of ROG, 270 pounds per day of NOx, 8 pounds per day of PM_{10} and 7 pounds per day of $PM_{2.5}$.

- Criteria pollutant impacts from the decommissioning of shoreside power in 2013 are addressed in Impact AQ-4, pages 5.8-32 to 5.8-35, and attributed to the operations of AC34, as the AC34 events would prevent the reactivation of shoreside power in 2013. As indicated in Table 5.8-7 on page 5.8-33 of the Draft EIR, decommissioning of shoreside power in 2013 was estimated to result in emissions of 4 pounds per day of ROG, 94 pounds per day of NOx, 2 pounds per day each of PM_{10} and $PM_{2.5}$. Per the discussion in Section 12.13.1, Updated Air Quality Assumptions and Analyses, above, the revised estimates presented in this Final EIR are 8 pounds per day of ROG, 221 pounds per day of NOx, and 6 pounds per day each of PM_{10} and $PM_{2.5}$.

- Criteria pollutant impacts from the potential decommissioning of shoreside power in 2014 under the Pier 27 Shed variant are addressed in Impact AQ-19, pages 5.8-54 to 5.8-56, and attributed to construction activities under the Pier 27 Shed Variant. As indicated in Table 5.8-13 on page 5.8-55 of the Draft EIR, decommissioning of shoreside power in 2014 was estimated to result in emissions of 4 pounds per day of ROG, 114 pounds per day of NOx, 2 pounds per day each of PM_{10} and $PM_{2.5}$. Per the discussion in Section 12.13.1, Updated Air Quality Assumptions and Analyses, above, the revised estimates presented in this Final EIR are 19 pounds per day of ROG, 268 pounds per day of NOx, and 5 pounds per day each of PM_{10} and $PM_{2.5}$.

Similarly, calculations of cancer risk and hazards impacts related to the temporary decommissioning of shoreside power were assigned to either the AC34 or Cruise Terminal project, or to the Pier 27 Shed Variant, as discussed below:

- Cancer risk and hazard impacts from the decommissioning of shoreside power in 2012 are addressed in Impact AQ-12, page 5.8-47, and attributed to the construction of the Cruise Terminal project, as the shell of the cruise terminal would be constructed in 2012 and would serve as the initial impetus for decommissioning of shoreside power. The Draft EIR states on page 5.8-47 that "the increase in risks and hazards from cruise ship emissions at Pier 27 during 2012 construction activities associated with the loss of the shore power hookup (which would be disconnected and relocated until completion of the cruise terminal) are also included in the construction risk assessment."

  However, Table 5.8-10 on page 5.8-48 of the EIR inadvertently identifies these risks as occurring during 2013. Consequently, to correct this error, the following text revision to Table 5.8-10 on page 5.8-48 is indicated below (deleted text is shown as ~~strikethrough~~ and new text is underlined). The values in this table are revised for this Final EIR as discussed in Section 12.13.1, Updated Air Quality Assumptions, above, to reflect the increased assumption in the number of cruise ship port calls.

TABLE 5.8-10
MAXIMUM LIFETIME EXCESS CANCER RISK, CHRONIC AND ACUTE NON-CANCER HAZARD QUOTIENT, AND $PM_{2.5}$ CONCENTRATIONS FOR CRUISE TERMINAL AND ~~2013~~ 2012 LOSS OF SHORESIDE POWER

Endpoint	Cruise Terminal Construction	Impact from Loss of Shoreside Power (2012)	Total Risks and hazards (Construction and additional year of Shoreside Power Loss)	BAAQMD Threshold

- Cancer risk and hazard impacts from the decommissioning of shoreside power in 2013 are addressed in Impact AQ-5, pages 5.8-35 to 5.8-38, and attributed to the operations of AC34, as AC34 operations would prevent the reactivation of shoreside power in 2013. These risks are included in Table 5.8-8 on page 5.8-36 of the Draft EIR as indicated by the table title. The values in this table are revised for this Final EIR as discussed in Section 12.13.1, Updated Air Quality Assumptions, above, to reflect the increased assumption in the number of cruise ship port calls.

- Cancer risk and hazard impacts from the decommissioning of shoreside power in 2014 under the Pier 27 Shed Variant are addressed in Impact AQ-20, page 5.8-56, and attributed to construction activities under the Pier 27 Shed Variant for the Cruise Terminal project and are quantified in the text on page 5.8-56 of the EIR. The risks are revised for this Final EIR as discussed in Section 12.13.1, Updated Air Quality Assumptions and Analyses, above, to reflect the increased assumption in the number of cruise ship port calls.

Shoreside Power Emissions Assumptions of the EIR, BAAQMD, and USEPA

Comments A-BAAQMD-01 and O-TIRN-17 point out that the calculated maximum annual emission for shoreside power decommissioning in the Draft EIR differs from the emissions calculated by the BAAQMD in 2009 as part of the funding application prior to installation of shoreside power. The differences in hoteling[3] emission estimates for the BAAQMD, U.S. Environmental Protection Agency (USEPA) and those calculated in the Draft EIR analysis are attributable to differences in the assumptions and parameter values and the years of analysis used to estimate emissions, rather than to incomplete accounting of hoteling emissions in the EIR. These values, which include number of hoteling calls, the emission factors, and vessel hoteling parameters, are described below.

The numbers of hoteling calls are different for the Draft EIR analysis,[4] USEPA,[5] and BAAQMD[6] analyses because they are calculated for different years of analysis with associated differences in the extent of regulatory implementation on ocean-going vessels. The numbers of calls used by BAAQMD and USEPA (i.e., 39 calls for BAAQMD and 40 calls for USEPA) are based on projected 2014 implementation of the Air Resources Board (ARB) shore power regulation for ocean going vessels. The Draft EIR analysis, however, evaluates emissions for 2012 and 2013 from the additional number of hoteling calls above the baseline scenario (where baseline is defined as 63 of 80 calls hoteling), leaving 17 of 80 calls using shore power that would represent the increase in hoteling emissions.[7] Thus, the total hoteling emissions are lower for the Draft EIR analysis than those for the USEPA and BAAQMD analyses partly because they are based on fewer calls of shoreside power-ready vessels expected in earlier years of analysis. As noted above, this assumption has been updated for the Final EIR based on the provision of new data by the Port of San Francisco as discussed in Section 12.13.1, Updated Air Quality Assumptions. This new data suggests 40 shoreside power-ready vessels are booked for travel to the Port in 2012 which could connect to the shoreside power facilities at Pier 27 – functionally equivalent to the 2014 estimates in the BAAQMD and USEPA analyses.

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[3] For the purpose of this response, "emissions produced due to loss of shore power" and "emissions averted due to the use of shore power" are both referred to as hoteling emissions.

[4] The assumptions and details of the EIR hoteling emissions analysis are presented in memo by ENVIRON, entitled "Cruise Ship Vessel Activity and Emission Inventory Methodology James R. Herman Cruise Terminal and Northeast Wharf Plaza Project," Memorandum to Chris Sanchez, ESA, from Elizabeth Miesner, Michael, Keinath, Chris Linjhem, and Till Stoekenius, dated August 10, 2011. This memo is included in Appendix AQ, Section 4, to supplement the information presented in the Draft EIR.

[5] Refer to "From Port of San Francisco 2009-2010 DERA application" attachment to public comment, shown in Comment O-TIRN2-49.

[6] Refer to "Port of San Francisco Shore Power Project Analysis" attachment to public comment, shown in Comment O-TIRN2-48.

[7] Based on actual number of port calls from 2001 to 2010, the nominal maximum number of port calls of 80 per year was used in the emission analyses for the baseline and future scenarios. The number of shore power calls for the baseline conditions (17) is based on 13 of 61 total calls are expected to use shore power in 2011, when scaled to 80 calls, it results in the assumption of 17 calls using shore power.

Table 12.13-1 shows how the emissions from each analysis can be divided by the total number of calls to compare emissions per call. As shown below, each study produced different estimates for the NO_x generated per call. The table also shows that the BAAQMD and USEPA estimates are not mutually consistent, with the USEPA estimate for NO_x being more than twice the estimate by BAAQMD. Coincidentally, the NO_x per call estimate presented in the EIR (Draft and Final) is the average of the USEPA and BAAQMD estimates, at 1.23 tons per call.

TABLE 12.13-1
COMPARISON OF NO_x EMISSIONS ESTIMATES PER SHIP CALL

Source Study	NOx (tons per year)	Number of ship calls per year	NOx tons/call
USEPA (based on 2014+)[a]	67.2	40	1.68
BAAQMD[b]	30.7	39	0.788
AC34 Draft EIR Table 5.8-7 (based on 2013)[c]	21	17	1.23
AC34 Final EIR Table 5.8-7 (based on 2013) [c]	49	40	1.23

[a] From Port of San Francisco 2009-2010 DERA application, shown in Comment O-TIRN2-49.

[b] Port of San Francisco Shore Power Project Analysis, shown in Comment O-TIRN2-48.

[c] ENVIRON, "Cruise Ship Vessel Activity and Emission Inventory Methodology James R. Herman Cruise Terminal and Northeast Wharf Plaza Project," Memorandum to Chris Sanchez, ESA, from Elizabeth Miesner, Michael, Keinath, Chris Linjhem, and Till Stoekenius, dated November 10, 2011. See Appendix AQ-4 of this Final EIR.

To estimate hoteling emissions resulting from shore power decommissioning during construction, the Draft EIR analysis uses operating parameters based on actual 2011 vessel calls that use shore power. When compared to the operating parameters used in the Draft EIR, the BAAQMD calculations generally assumed lower electrical load (6,800 kW versus 7,373 to 9,712 kW for the Draft EIR); lower berthing time (8.4 hours versus 9 to 15 hours for the Draft EIR); and control factors (an estimate of downtime in hours for hookup/disconnect activities); these differences resulted in lower emission estimates per call (see **Table 12.13-2**).

TABLE 12.13-2
COMPARISON OF ESTIMATED EMISSIONS PER CALL (TONS PER CALL)

Pollutant	BAAQMD	USEPA	AC34 Draft EIR
SO_x	Not reported	0.513	0.042
PM_{10}	0.014	0.0595	0.023
NO_x	0.79	1.68	1.23
CO_2	Not reported	83.6	103
CO	Not reported	0.133	0.098
HC/ROG	0.028	0.048	0.046

In contrast, the USEPA analysis reports higher estimated hoteling emissions relative to the Draft EIR (except for CO_2, see Table 12.13-2). No details on emission factors or operating parameters were provided with this public comment for the USEPA analysis. Differences between Draft EIR and USEPA estimates could also likely be due to differences in assumed power demand, berthing time, control factor, and/or emission factors. For example, the lower SO_x and PM_{10} emission estimates in the Draft EIR relative to the USEPA analysis may be due to the inclusion in the Draft EIR analysis of the requirement that 0.1 percent sulfur fuel be used in California waters in 2012. (see Appendix AQ-5, which is included as part of the Comments and Responses document to augment the information presented in the Draft EIR for an explanation of fuel assumptions used in the EIR analysis). This requirement will result in lower PM, SO_x and NO_x emissions.[8] However, additional details on the USEPA calculations (not provided by the commenter) are required to better understand the differences in calculations.

Thus, based on the available details for the three emission analyses, the differences in emission estimates between the Draft EIR, USEPA and BAAQMD analyses are mostly likely attributed to differences in parameter values and assumptions, and do not indicate an incomplete inventory of hoteling emissions associated with shore power decommissioning for the Draft EIR.

In response to Comment A-BAAQMD-03, regarding the BAAQMD recommendations, the Planning Department acknowledges that the BAAQMD recommends that shoreside power for cruise ships at Pier 27 not be decommissioned at any point in time. The Port of San Francisco has determined that constructing a state-of-the-art primary cruise terminal at Pier 27 would focus future berthing activity at the facility equipped with shoreside power facilities, and that it is not possible to continue berthing cruise ships at Pier 27 during construction of the cruise terminal. Issues related to the contract between the Port of San Francisco and the BAAQMD for AB923 funds granted for electrification of the shoreside power to avoid cruise ship emissions do not directly address the adequacy of the Draft EIR. The information will be forwarded to the decision makers. Please see Section 12.13.7, Response AQ-5, below, regarding updated and augmented mitigation measures developed subsequent to the publication of the Draft EIR to further reduce the air quality impacts associated with temporary decommissioning of shoreside power at Pier 27.

12.13.5 AC34 Events Risk and Hazard Analysis Sources and Assumptions [AQ-3]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-BAAQMD-O7
O-NRDC-05

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[8] California Air Resources Board. 2006. "Regulations to Reduce Emissions from Auxiliary Diesel Engines and Diesel-Electric Engines Operated on Ocean-Going Vessels within California Waters and 24 Nautical Miles of the California Baseline: Updated Informative Digest". Available: http://www.arb.ca.gov/regact/marine2005/uid.pdf

- In the risk and hazards analysis, the Draft EIR did not provide the locations of the maximum exposed individual, the sources of pollutants contributing to the risk, and therefore the mitigation measures are not the most effective and efficient mitigation strategies. We recommend the EIR identify additional feasible mitigation measures to reduce the impacts based on the sources causing the impact. Because Mitigation Measure M-AQ-2a and M-AQ-2b are required as state and federal mandates, the EIR should have included the emission reductions from these measures when estimating risks and hazards impacts. [A-BAAQMD-07]
- Construction emissions exceed permissible thresholds and additional mitigation measures are necessary to avoid significant health risks from NOx and fine particulate matter pollution. [O-NRDC-05]

Response AQ-3

AC34 Construction Impacts

Impact AQ-3, pages 5.8-29 to 5.8-31, in the EIR presents an assessment of health risks related to use of diesel-powered equipment during construction of the AC34 facilities. Such equipment would include pile drivers, cranes, tug boats, service boats, dredging equipment, loaders and backhoes. The assessment identifies that existing residents located west and south of project venues would be considered the maximum exposed individual (MEI) and the most sensitive receptor to these potential health risks, since there would be no recreational receptors during construction. The assessment determined that only the threshold for acute hazard index (HI) would be exceeded. For acute HI during construction, the resident MEI is located approximately one block south of The Embarcadero, across from Pier 15. The main contributor to acute HI at the MEI is water-bound, offroad, diesel construction equipment for dock and pile installation and removal in the open water areas bounded by Piers 9 and Pier 23. As indicated on Page 5.8-30 of the Draft EIR, the acute HI would primarily be due to acrolein from construction equipment diesel exhaust. Sensory irritation is the primary adverse effect associated with acute, low level exposures to acrolein with brief exposures causing irritation of the eyes and nose.[9]

The estimated acute hazard index is conservative due to the lack of project-specific construction phasing. The exact timing and duration of construction activities at any one time is unknown. Therefore, the emissions for acute risks are estimated based on maximum 1-hour emissions. Because the maximum 1-hour concentration assumes the maximum number of equipment operating at any one time, it represents a worst-case analysis and therefore is highly conservative. Realized acute risks are anticipated to be much lower.

As discussed in Section 12.13.1, Updated Air Quality Assumptions and Analyses, since publication of the EIR, the BAAQMD has provided revised guidance regarding the methodology for assessing acute health hazard, and consistent with ARB recommendations, the BAAQMD no longer recommends evaluating the acute health risks from acrolien in DPM. See Section 12.13.1

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[9] California Office of Environmental Health Hazard Assessment, Draft TSD for Noncancer REL's, Acrolein Reference Exposure Levels, December 2008.

for additional details as to how this updated methodology revises the analysis presented in the Draft EIR.

Mitigation Measures M-AQ-2a (Construction Vehicle Emissions Minimization) and M-AQ-2b (Off-Road Construction Equipment), pages 5.8-27 to 28, were identified as potential methods to reduce impacts from standardized construction equipment for which "tiered" equipment is available.

The extent to which Mitigation Measures M-AQ-2a and M-AQ-2b can be implemented will depend on future availability and feasibility constraints. Because it would be speculative to estimate the fraction of the construction fleet that could be feasibly equipped with diesel-control equipment, the impact analysis does not calculate the construction-related reductions in emissions based on implementation of these measures. Instead, the emissions presented in the EIR are conservative, based on the best information available at the time of the analysis. In addition, the EIR presents an evaluation of how the mitigation measures would affect the significance determination. Thus, the effectiveness of Mitigation Measures M-AQ-2a and M-AQ-2b in reducing construction-related emissions, while not explicitly quantified, is sufficiently evaluated and presented in the Draft EIR.

In response to Comment O-NRDC-05, as indicated in Table 5.8-6, page 5.8-30, the BAAQMD health exposure threshold for fine particulate matter would not be exceeded during AC34 construction. With respect to regional emissions of $PM_{2.5}$ and NOx, Table 5.8-5, page 5.8-27, indicates that average daily construction emissions for these pollutants are estimated to exceed the respective BAAQMD thresholds. As described above, Mitigation Measures M-AQ-2a and M-AQ-2b were identified as potential methods to reduce impacts from standardized construction equipment for which "tiered" equipment is available. However, given the degree of uncertainty associated with implementing all or parts of the mitigation measures, as further discussed in Response AQ-6, the impact was determined to be significant and unavoidable. Updated and augmented mitigation measures to reduce construction-related emissions associated with the AC34 project are presented in Section 12.13.7, Updated and Augmented Air Quality Mitigation Measures, Response AQ-5 of this Final EIR, including quantified estimates of the emissions reductions from the updated and augmented mitigation measures.

AC34 Operational Impacts

Impact AQ-5, pages 5.8-35 to 5.8-38, in the EIR presents an assessment of health risks related to use of diesel particulate matter and diesel exhaust during the operational phase of the AC34 events. Potential sources include boat and yacht trips, boat lifts, generators, other diesel-powered equipment at the venue sites, vehicle traffic, and helicopter operations. Health risks were calculated for both residential and non-residential (i.e., spectator) receptors.

The receptor locations (presented in UTM coordinates) where operational cancer risk exceeds 10 in a million are provided in Appendix AQ -2 in the Draft EIR (Air Quality Supporting Information, Health Risk Assessment Results Sample). The MEI locations where risk thresholds where exceeded were reviewed to determine the major sources affecting these MEI locations. The analysis identified exceedances for cancer risk, acute HI and $PM_{2.5}$ during AC34 operations (although Impact AQ-12, page 5.8-47, and Impact AQ-15, page 5.8-50, determined that there would be no exceedances of any risk thresholds during cruise terminal construction or operations).

During AC34 operations, the recreational and residential MEIs for cancer risk, acute HI and $PM_{2.5}$ would all be located in the vicinity of Piers 19, 19½ and 23. For both cancer risk and $PM_{2.5}$, the recreational MEI would be located at the tip of Pier 23, and the resident MEI would be located across The Embarcadero from Pier 19. In both cases, the main contributors to risk and $PM_{2.5}$ would be diesel off-road equipment (e.g., generators, forklifts, bobtail trucks, and other diesel-powered equipment used at the venues) at Piers 19, 19 ½, and 23; and race-sponsored spectator boats at nearby Piers 27, 29, and 31.

For acute HI, the recreational and resident MEIs would both be located across The Embarcadero from Piers 19 and 19 ½. The same two major sources that would contribute to MEI cancer risk and $PM_{2.5}$ would also be the major contributors to MEI acute HI (i.e., diesel race-sponsored vessels at Piers 27, 29, and 31; and diesel off-road equipment at Piers 19, 19 ½, and 23).

The mitigation measures presented in the EIR address most of these major sources: Mitigation Measure M-AQ-4 (Emission Controls for Race-Sponsored Spectator and Support Vessels), page 5.8-34 (as revised), would address emissions from race-sponsored spectator boats at Piers 27, 29, and 31, and Mitigation Measure M-AQ-5 (Clean Sources for Temporary Power at Venues), as revised, would address generators used during operations at Piers 19, 19 ½, and 23. Although private diesel- and gas-powered spectator boats in the nearshore area are identified as contributing to the health risk for the MEI, the project sponsors do not have control over the emissions from privately owned and operated spectator boats, so no feasible mitigation measures could be imposed on these sources by the project sponsor. See Response AQ-5, below, for a discussion of how these mitigation measures have been revised and augmented to further reduce air quality impacts.

12.13.6 Cruise Ship Terminal Air Quality Impacts [AQ-4]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-241
O-ACEC-242
O-ACEC-243
O-ACEC-244
O-TIRN-11
O-TIRN-25
O-TIRN-26

- The EIR should describe baseline emissions due to cruise ships and how these emissions will change when shoreside power is shut down. The EIR must quantify and mitigate future impacts from larger ships and larger engines and consider expected 2014 regulations. [O-ACEC-241, O-ACEC-242, O-TIRN2-11, O-TIRN2-25]
- The EIR does not support its finding that Impact AQ-15 regarding risk and hazards impacts of the Cruise Terminal project has less than significant impact. [O-ACEC-243, O-TIRN2-25]

- The EIR should correct its claim that the Commercial Harbor Craft Regulation applies to cruise ships to indicate that it applies only to tugboats and other commercial harbor craft. [O-ACEC-244, O-TIRN2-26]

Response AQ-4

Comments related to the air quality impacts of decommissioning of shoreside power are addressed in Response AQ-2, above.

Baseline Conditions

As discussed in Section 5.8.3.1, Significance Criteria, and Section 5.8.3.2, Approach to Analysis, the EIR assesses air quality impacts with respect to criteria established by the BAAQMD in its recently updated *CEQA Air Quality Guidelines* (May 2011). For operational impacts of criteria pollutants, BAAQMD has established significance criteria in terms of a projects' contribution of reactive organic gases (ROG), oxides of nitrogen (NOx), particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$) in pounds of emission per day or tons of emission per year. These criteria are to be compared directly to the emissions contribution of a proposed project and are independent of existing baseline emissions.[10] Likewise, for assessment of localized impacts from toxic air contaminants and $PM_{2.5}$, significance thresholds developed by the BAAQMD are established relative to a project's increased contribution to local risks and hazards and $PM_{2.5}$ concentrations and are also independent of any baseline emissions. Consequently, calculation of baseline cruise ship emissions is not a necessary requirement for adequate air quality impact assessment relative to CEQA and was not undertaken in the EIR. The EIR does, as discussed in Response AQ-2, take into account project-related increases in emissions resulting from decommissioning of shoreside power.

Criteria Pollutants and Precursors Emissions

As described in the EIR under Impact AQ-14, page 5.8-49, no changes in cruise ship operations would occur as part of the proposed project, other than relocation of the cruise terminal from Pier 35 to Pier 27. Because the project in and of itself would not result in an increase of port calls, there would be no future operational increases in cruise ship emissions (either for propulsion or hoteling) as a result of the Cruise Terminal project and calculation of future emissions was not necessary for a determination of a less than significant impact. In addition, the project would include an upgrade to the current shoreside power facility such that, in the future following completion of the proposed cruise ship terminal, a greater number of ships and larger ships would be able to use shoreside power when in port.

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[10] The only reference to "baseline" emissions contained in the BAAQMD's *CEQA Air Quality Guidelines* is with respect to allowing an analysis the ability to subtract any existing emissions from existing sources to be vacated or demolished from the project site, provided the existing sources were present at the time of circulation of the Notice of Preparation.

While there might be changes in the size and type of ships that would access Pier 27 in future years, implementation of new marine engines, fuel, and shoreside power regulations would be considered changes that would occur independent and regardless of the proposed project; therefore, these changes are not considered as an impact of the proposed cruise terminal for the purposes of assessing criteria pollutant emissions in Impact AQ-14. However, newer model and larger ships are expected to call at the new terminal in future years, and the three latest model vessels calling in 2011, which were newer model and larger vessels, were used to represent the future fleet. Further clarification of cruise ship vessel activity and emission inventory methodology used in the EIR is provided in a memorandum in Appendix AQ-4, which is included as part of the Comments and Responses document to supplement the information provided in the Draft EIR.

Risk and Hazards Assessment

Under Impact AQ-15, page 5.8-50, the analysis assumed 80 cruise ship calls per year with regard to exposure impacts associated with future operations of the cruise terminal, and the same assumption is used on page 5.8-66 of the EIR with respect to cumulative air quality impacts. The calculated increases in localized risks and hazards associated with the relocation of the cruise terminal from Pier 35 to Pier 27 is shown in Table 5.8-11 on page 5.8-50 of the EIR. The relocated emissions associated with the cruise terminal operations would expose new sensitive receptors to toxic air contaminates and respirable particulate matter that would be below BAAQMD significance thresholds, and the impact on sensitive receptors in the vicinity of Pier 27 was identified as less than significant.

In response to Comments O-ACEC-244 and O-TIRN2-26, the EIR text on page 5.8-50, at the end of the second full paragraph of Impact AQ-15, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> As discussed previously, the CARB implemented the Commercial Harbor Craft Regulation in January 2009 to reduce emissions of DPM and oxides of nitrogen (NOx) from diesel engines used on commercial harbor craft operated in California Regulated Waters. California Regulated Waters are all internal waters, estuarine waters, ports and coastal waters within 24 nautical miles of the California coast. The regulation includes requirements for new and in-use (existing) engines as well as monitoring, recordkeeping, and reporting requirements. These requirements will result in a gradual reduction in emissions from tug boats guiding cruise ships to port at ~~associated with~~ the cruise terminal and associated risk and hazards.

This text change does not alter the findings of significance for air quality impacts, either prior to, or after mitigation.

12.13.7 Updated and Augmented Air Quality Mitigation Measures [AQ-5]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-95
A-BAAQMD-04
A-BAAQMD-05
A-BAAQMD-06
A-BAAQMD-08
A-SFPC-Anto-02
O-ACEC-236
O-ACEC-237
O-ACEC-238
O-TIRN1-02
O-TIRN1-03
O-NRDC-05
O-NRDC-22
O-NRDC-23
O-NRDC-24
I-Rose1-04
I-Rose1-05
I-Rose2-03
O-TIRN2-07
O-TIRN2-09
O-TIRN2-15
O-TIRN2-16
O-TIRN2-20
O-TIRN2-21
O-TIRN2-22
O-TIRN2-37
O-TIRN2-45
O-TIRN2-46
O-TIRN2-47
O-WW-35

- The project should not settle for significant and unavoidable impacts on air quality, and should further explore opportunities to limit emissions from vessels. [A-NPS2-95]
- Any increase in emissions due to decommissioned shoreside power should be offset by shoreside electrification projects at other local piers. [A-BAAQMD-04]
- All feasible mitigations should be implemented to reduce emissions. Mitigation Measure M-AQ-4, which currently applies only to race-sponsored vessels, should apply to all support vessels as well. [A-BAAQMD-05]
- The EIR should counteract emissions from private vessels with an offsite mitigation program such as replacing older gasoline powered harbor craft. [A-BAAQMD-06]
- Additional mitigations should prohibit diesel generators, provide propane tanks, require DPM filters when Tier 3 engines are unavailable, and require biodiesel or alternative fuels in construction equipment and off-road vehicles. [A-BAAQMD-08]
- The EIR should mention the possibility of continued shoreside power use during the America's Cup. [A-SFPC-Anto-02]
- Contrary to the EIR's claim, the Port and City have the authority to regulate emission reduction from private vessels as a condition of port entry. The project should provide emissions enforcement officers and not rely on state and federal enforcement. [O-ACEC-236, O-TIRN2-20]
- The EIR should consider and analyze additional mitigations for race-sponsored, private and commercial spectator vessels, and harbor craft such as ferries, such as hooking up to shoreside power when docked, shutting down engines when anchored on the Bay, using biodiesel, requiring vessels to meet California regulations for marine engines, and using low- or zero-emissions vessels. [O-ACEC-237, O-TIRN2-21]
- Mitigation Measure M-AQ-4 should require all race-sponsored vessels to meet strict state standards and set conditions to mitigation emissions from private vessels. The word

"feasible" should be clearly defined or eliminated from this and all mitigations. [O-ACEC-238, O-TIRN2-22]

- If mitigation cannot reduce emissions below established significance thresholds, the EIR must provide funds for additional mitigations. [O-NRDC-05]
- Construction and operation of this project will both cause significant and unavoidable air pollution and health risks that must be mitigated. Vulnerable populations are located close to the project area. [O-NRDC-22]
- To prevent health risks from NOx and particulate matter, construction equipment should be equipped with Best Available Control Technology, equipment should meet Tier 4 standards when possible, and operations should be electrified to the extent possible. [O-NRDC-23]
- In addition to existing mitigations, the EIR should require cruise ships to use alternative emission-reduction measures, construct a zero emissions water taxi, and implement other air quality projects. [O-NRDC-24, O-TIRN2-16]
- The plan to abandon a newly installed shoreside power system costing millions of dollars and increase air pollution is deeply disturbing and must be mitigated. [I-Rose1-04, I-Rose1-5, I-Rose2-03]
- The EIR fails to identify and require mitigations that would reduce air quality impacts from marine vessels. [O-TIRN2-07]
- The EIR fails to consider alternatives for keeping shoreside power operational. [O-TIRN2-09]
- Shoreside power should be maintained, either at Pier 27 or Pier 35. If shoreside power is truly infeasible, the EIR should explain this conclusion in detail. [O-TIRN2-15, O-TIRN1-03]
- The EIR has not considered all feasible mitigation measures, and should find other ways to reduce emissions such as requiring clean fuel and shoreside power. [O-TIRN1-3, O-TIRN2-37]
- Shoreside power should be maintained, either at Pier 27 or Pier 35. If shoreside power is truly infeasible, TIRN requests a written explanation. [O-TIRN2-45]
- Additional mitigations include requiring cruise ships to use alternative emission-reduction measures, constructing a zero emissions water taxi, retrofitting existing vessels, and implementing other air quality projects in the region. [O-TIRN2-46]
- The Port, City, granting agencies and BAAQMD should calculate planned emissions reductions that shoreside power would have achieved, and consider alternative plans that will result in this level of emissions. [O-TIRN2-47]
- The EIR must use its best effort to determine if vessels with Tier 3 or Tier 4 engines are available. [O-WW-35]

Response AQ-5

Numerous comments request augmenting the air quality mitigation measures in the EIR, particularly with the objective of offsetting air quality impacts associated with the temporary decommissioning of shoreside power. As described in Response AQ-2, above, air quality impacts related to the temporary decommissioning of shoreside power are addressed under several impacts in Section 5.8.3 of the EIR related to criteria air pollutant impacts and localized risk and hazard impacts for both the AC34 and Cruise Terminal projects. Collectively, these impacts identified the following mitigation measures to reduce air quality impacts associated with either construction or operational phases of the AC34 or Cruise Terminal projects that could be attributable to the decommissioning of shoreside power in 2012, 2013, or 2014:

- Mitigation Measure M-AQ-2a: Construction Vehicle Emissions Minimization
- Mitigation Measure M-AQ-2b: Off-Road Construction Equipment
- Mitigation Measure M-AQ-4: Emission Controls for Race-Sponsored Spectator Vessels
- Mitigation Measure M-AQ-5: Clean Diesel Engines for Temporary Power

Even with implementation of the above measures, the Draft EIR determined that air quality impacts associated with criteria air pollutant impacts and localized risk and hazard impacts for both construction and operation of the AC34 facilities and events would be significant and unavoidable. In addition, impacts associated with criteria air pollutant emissions due to construction of the Cruise Terminal project would be significant and unavoidable.

The Draft EIR assumed that in general, mitigating emissions that would be generated by the loss of shoreside power would be limited by physical constraints of available piers. Continuation of shoreside power operations at Pier 27 in 2012 and 2013 was deemed infeasible for logistical and safety considerations. First, demolition of the Pier 27 shed would occur over several months of summer 2012, which would preclude any ship arrivals at Pier 27. Second, once demolition is complete, Pier 27 would be an active construction site into 2013 with material equipment and material staging. Ongoing construction activities would represent safety impediments for passenger ingress and egress that would prohibit continued use of Pier 27 as a cruise ship port and associated use of shoreside power at this location during this period.

Moving the existing shoreside power facility to the existing Pier 35 cruise ship terminal during this period would be infeasible for logistical reasons. The existing apron at Pier 35 is too narrow to allow room for shoreside power connection cables and forklifts necessary for connection. Additionally, because ships retrofitted for shoreside power have the electrical hook-up connections on the port (left) side of the ship, they would be required to back into the Pier 35. This would result in passenger egress into the cargo area. Further, because there is no existing high voltage power connection at Pier 35, costs to provide the necessary power are estimated at $6 to 10 million and would involve trenching into The Embarcadero that would disrupt traffic flow during construction. Consequently, moving the shoreside power system to Pier 35 is deemed infeasible for logistical and financial reasons.

In response to comments received on the Draft EIR, the feasibility of augmenting and supplementing the mitigation measures to further reduce air quality impacts, including impacts due to temporary loss of shoreside power, was further examined. This resulted in revised and augmented mitigation measures for both the construction and operational phases of the AC34 project and for the construction phase of the Cruise Terminal project. These measures are described below.

While all of these supplemental measures would incrementally reduce emissions estimated in the Draft EIR, a reduction to levels below the significance thresholds for all criteria pollutants would still not be possible, and the impact conclusions presented in the EIR would remain unchanged, that is, construction and operational air quality impacts of the AC34 events and facilities and construction of the cruise terminal due to emissions of criteria pollutants and precursors would be significant and unavoidable, even with implementation of the augmented mitigation measures.

Augmented AC34 Construction Mitigation Measures

The Port of San Francisco, in consultation with the Event Authority, has identified several possible modifications to mitigation measures applicable to the construction phase of the AC34 events, including:

- Requiring use of hydropower electricity instead of diesel-powered generators at all locations where electrical power is available, or where use of propane-powered generators is feasible
- Requiring use of air quality best management practices for construction equipment
- Requiring engine standards for harbor craft used in construction
- Requiring contractors to use biodiesel fuel for all off-road construction equipment

In response to these comments, the EIR text on page 5.8-27 is revised in the first paragraph under "Impact Summary" as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> **Impact Summary**
>
> Construction of the America's Cup facilities would result in emission of NOx that would exceed BAAQMD thresholds of significance, a *significant* impact. Implementation of **Mitigation Measure M-AQ-2a** (Construction Vehicle Emissions Minimization), ~~and~~ **M-AQ-2b** (Off-Road Construction Equipment), **M-AQ-2c** (Off-Road Construction Equipment - Electricity Use), **M-AQ-2d** (Off-Road Construction Equipment Best Management Practices), **M-AQ-2e** (Off-Road Construction Equipment, Engine Standards for Harbor Craft Used in Construction), and **M-AQ-2f** (Fuels for Off-Road Construction Equipment) would reduce the severity of the impact. These measures would require~~ing~~ use of off-road equipment that meets the most stringent U.S. EPA standards, best management practices, and biodiesel fuels, as available, as well as use of hydropower electricity where available and propane- instead of diesel-powered generators; in addition, the project would be subject to ~~and~~ the requirements specified under the Clean Construction Ordinance ~~would reduce the severity of the impact~~. However, as discussed below, the ability of the mitigation measures to reduce the impact to less than significant depends on the feasibility of implementing the measures.

This revision does not change the analysis or conclusions presented in the EIR.

In response to these comments, the Mitigation Measure M-AQ-2b on page 5.8-28 of the EIR is amended as indicated below (deleted text is shown as ~~strikethrough~~ and new text is underlined). This text change does not alter the findings of significance for air quality impacts, either prior to, or after mitigation.

Mitigation Measure M-AQ-2b: Off-Road Construction Equipment

The project sponsors shall ensure that construction contract specifications include a requirement that all off-road construction equipment ~~used for AC34 improvements~~ be equipped with diesel engines meeting USEPA Tier 3 standards for NOx and PM (Tier 2 standards if greater than 750 hp) ~~diesel engines~~ or better ~~to the extent feasible~~. The following types of equipment [11] were identified as available for rental in Tier 3 models, or are candidates for retrofitting with emissions control technology, due to their expected operating modes (i.e., fairly constant use at high revolution per minute):

- Excavators
- Backhoes
- Rubber-Tired Dozers
- Concrete Boom Pumps
- Concrete Trailer Pumps
- Concrete Placing Booms
- Compressors
- Soil Mix Drill Rigs
- Soldier Pile Rigs
- Shoring Drill Rigs

At construction locations where power demands allow it, propane generators shall be used in lieu of diesel powered generators. ~~All diesel~~Diesel generators used for project construction shall meet Tier 4 emissions standards ~~to the extent feasible~~.

~~To the extent that the above listed types of equipment are used for project construction, those equipment types shall be required to meet NOx emission standards equivalent to Tier 3 (Tier 2 if greater than 750 horsepower) engines, if feasible~~.

In addition to the Tier 3 emissions standard requirement, all equipment must be equipped with a CARB Level 3 Verified Diesel Emission Control System (VDECS) for PM control, where feasible. The construction contractor shall provide proof in the form of a manufacturer's engineering evaluation or other proof to the satisfaction of the Environmental Review Officer that a CARB-verified Level 3 VDECS is not feasible for a particular equipment type.

Should it be determined by the construction contractor or its subcontractors that compliance with the emissions control requirements of this mitigation measure is infeasible for any of the above-listed construction equipment, the construction contractor shall demonstrate an alternative method of compliance that achieves an equivalent reduction in the project's fleetwide NOx and PM emissions. If alternative means of compliance with the emissions exhaust requirements are further determined to be infeasible, t~~T~~he construction contractor shall document, to the satisfaction of the Environmental Review Officer, that the contractor has complied with this mitigation measure~~ to the extent feasible and indicate why full compliance with the mitigation measure is infeasible~~.

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[11] http://tier3rental.com/

In addition, in response to these comments and to further mitigate construction emissions, the following new mitigation measures are an addition to the end of page 5.8-28 as indicated below (new text is underlined). As explained in the analyses of each mitigation measure, this text change does not alter the findings of significance for air quality impacts, either prior to, or after mitigation.

Mitigation Measure M-AQ-2c: Off-Road Construction Equipment - Electricity Use

Hydropower electricity supplied by a public utility shall be used where available at pier construction sites in lieu of temporary diesel or gasoline-powered generators and compressors. Existing utility service or temporary new utility service shall be the preferred power alternative, unless proven infeasible at each location where generators are proposed.

Analysis of Mitigation Measure M-AQ-2c: Operation of diesel powered generators and compressors account for 47 percent of construction-related NOx emissions and 61 percent of construction-related DPM emissions in 2012. Consequently, use of electricity and electrical compressors, particularly at Pier 27 would substantially reduce construction-related emissions in 2012 by up to 10.6 tons per year (58 pounds per day) of NOx and 1.0 ton per year (5.4 pounds per day) of DPM, assuming all compressors are electrically powered and no generators are required.

Mitigation Measure M-AQ-2d: Off-Road Construction Equipment - Best Management Practices (BMPs)

The following types of measures are required on construction equipment:

1. Use of CARB-verified diesel oxidation catalysts and catalyzed diesel particulate traps if not already included in the design of the equipment to meet Tier 3 standards, or not already required as part of Mitigation Measure M-AQ-2b above.

2. Install high-pressure fuel injectors on construction equipment vehicles.

3. Provide on-site services to minimize truck traffic in or near residential areas, including, but not limited to, the following services: meal or cafeteria services, automated teller machines, etc.

The Port shall implement a process by which to select additional BMPs to further reduce air emissions during construction. The Port shall determine the BMPs once the contractor identifies and secures a final equipment list.

Analysis of Mitigation Measure M-AQ-2d: These operational best management practices would result in a marginal reduction of construction related emissions but for the purposes of residual impact assessment, these resulting reductions are considered minor and are not quantified.

Mitigation Measure M-AQ-2e: Off-Road Construction Equipment - Engine Standards for Harbor Craft Used in Construction

All harbor craft with C1 or C2 marine engines used in construction must utilize a USEPA Tier-3 engine, or cleaner, if feasible.

Should it be determined by the construction contractor or its subcontractors that compliance with the emissions control requirements of this mitigation measure is infeasible for any of the harbor craft used in construction, the construction contractor shall demonstrate an alternative method of compliance that achieves an equivalent reduction in the project's fleetwide NOx emissions. If alternative means of compliance with the emissions exhaust requirements are further determined to be infeasible, the construction contractor shall document, to the satisfaction of the Environmental Review Officer, that the contractor has complied with this mitigation measure to the extent feasible and indicate why full compliance with the mitigation measure is infeasible.

Analysis of Mitigation Measure M-AQ-2e: Operation of harbor craft (tugs and service boats) used for construction account for 68 percent of construction-related NOx emissions and 62 percent of construction-related DPM emissions in 2013. Tier 3 engines reduce NOx emissions by 67 percent over the standard pre-year 2000 engines, while DPM emissions would be reduced by 84 percent. Consequently, this measure would substantially reduce construction-related emissions in 2013 by up to 12.5 tons per year of NOx and 0.6 ton per year of DPM.

Mitigation Measure M-AQ-2f: Fuels for Off-Road Construction Equipment

The project sponsors shall ensure that construction contract specifications include a requirement that all off-road construction equipment used for AC34 improvements be fueled with propane or biodiesel (B20 blended with California on-road diesel) unless precluded by engine type or warranty.

Analysis of Mitigation Measure M-AQ-2f: Use of 20 percent blended biodiesel in construction equipment would reduce emissions of ROG by 13 percent, reduce emissions of DPM by 7 percent but increase NOx by 3 percent. This measure would reduce construction-related emissions by up to 3.1 pounds per day of ROG and 0.7 pounds per day of DPM. NOx emissions would increase by 4.8 pounds per day. Consequently, implementation of Measure M-AQ-2f would result in a slight reduction in the significant construction-related health and risk impacts presented in Impact AQ-3 of the EIR (acute hazard index in excess of 1.0) and slightly exacerbate the significant regional pollutant significant impact identified in Impact AQ-2 of the Draft EIR (NOx emissions in excess of 54 pounds per day).

Post Mitigation Assessment of AC34 Construction Impacts

Mitigation Measures M-AQ-2a through M-AQ-2f would each incrementally reduce the significant construction-related impacts identified in Impact AQ-2 (NOx emissions in excess of 54 pounds per day) and AQ-3 (acute hazard index in excess of 1.0) of the Draft EIR. **Table 12.13-3** presents an estimate of the overall reduction in construction emissions with implementation of all identified mitigation measures. The estimates in Table 12.13-3 contain a number of assumptions

TABLE 12.13-3
MITIGATED AC34 AVERAGE DAILY CONSTRUCTION-RELATED EMISSIONS

	Average Daily Construction Emissions (pounds/day)			
	ROG	**NOx**	**PM10**	**PM2.5**
Cruise Terminal Phase I and AC34 Construction				
Pre Mitigation Total	24	160	10	10
Reduction from M-AQ-2a, 2b and 2d [a]	5	32	3	3
Reduction from M-AQ-2c (2012)	13	58 [b]	5	5
Reduction from M-AQ-2e (2013)	NA	68 [b]	3	3
Reduction from M-AQ-2f	3	-5	1	1
Post Mitigation Total	3	70	2	2
BAAQMD Threshold	54	54	82	54
Above Threshold?	No	Yes	No	No

NOTES:

[a] Assumes 50 percent of emissions are from equipment available as tier 3.

b the average for these two reductions (63 pounds per day) was used to estimate the post mitigation total

SOURCE: ENVIRON/ESA, 2011

regarding availability of Tier 3 diesel equipment and percentage contributions from various construction sources and are presented to give decision makers a rough estimate of potential benefits of these measures. Mitigation Measures M-AQ-2c and M-AQ2e have their primary benefits in years 2012 and 2013, respectively, due to equipment usage assumptions specific to those years. Consequently, the average for these two reductions was used to estimate the post mitigation total. As can be seen from this table, while implementation of these measures would substantially reduce project-related emissions of NOx, these emission levels would remain in excess of BAAQMD thresholds and therefore remain a significant and unavoidable impact, as identified in Impact AQ-2 of the Draft EIR.

DPM emissions, which would be the source of acrolein responsible for the estimated hazard index of 3.4 at the maximally exposed receptor in Impact AQ-3 of the Draft EIR, would be reduced by 80 percent. Assuming a proportional reduction in acute hazards, implementation of all mitigation measures would result in an acute hazard index of 0.7, which would be below the BAAQMD threshold of 1.0. However, given the uncertainty regarding the feasiblity of implementing Mitigation Measures M-AQ-2a through M-AQ-2f, Impact AQ-3 would remain significant and unavoidable with mitigation, as identified in the Draft EIR.

Additional and Augmented AC34 Operational Mitigation Measures

The Port of San Francisco, in consultation with the Event Authority, has identified several additional feasible mitigation measures applicable to the operational phase of the AC34 events, including:

- Augmenting Mitigation Measure M-AQ-4 to include not only race sponsored vessels but also race support vessels as a condition of venue leases;
- Installing a new temporary shoreside power system at Pier 27 to provide auxiliary power to large private yachts berthed there during the America's Cup event in 2013;
- Requiring use of alternative fuels (i.e., biodiesel) for large, private spectator vessels and race-sponsored vessels as a means of reducing emissions of hydrocarbons and PM_{10} associated with vessel operations;
- Accelerating the restoration of shoreside power at Pier 27 following completion of the AC34 2013 events by requiring the Event Authority to return the Pier 27 Cruise Terminal to the Port within one month after the final match to expedite construction of Phase 2 cruise terminal improvements, allowing shore power to be reconnected in time for the 2014 cruise season. Currently the Host Agreement allows return of the facility in March of 2014, which would not allow construction of Phase 2 improvements in time for 2014 season; and
- Augmenting Mitigation Measure M-AQ-5 to require electricity or non-diesel powered generators as the primary option for supplying temporary power to the venue sites rather than diesel-powered generators.

In response to this additional information, the EIR text on page 5.8-34 is revised by inserting new text following the second paragraph as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> **Impact Summary**
>
> Operational emissions of the America's Cup races would result in criteria pollutant emissions that would exceed BAAQMD significance criteria, a *significant* impact. These operational emissions would be temporary and limited to the duration of the AC34 events in 2012 and 2013. **Mitigation Measure M-AQ-4a** (Emission Controls for Race-Sponsored Spectator and Support Vessels) would reduce emissions of ROG, NOx, PM_{10}, and $PM_{2.5}$ from those presented in Table 5.8-7. However, this measure would only apply to commercial, race-sponsored and support vessels that would be under the contract authority of the Event Authority and could not be implemented on private vessels. ~~Race-sponsored spectator vessels (i.e., charters) would be regulated at the state and federal levels, rendering implementation of mitigation measures for emissions reductions from these vessels infeasible.~~ As discussed in more detail in **Mitigation Measure M-AQ-4a** (Emission Controls for Race-Sponsored Spectator and Support Vessels), the percent reduction needed to avoid a significant impact for ROG, NOx, and particulate matter would not be attainable. Because the predominant source of the emissions would be from private ~~and race-support~~ vessels for which emissions control is regulated at the state and federal levels, a reduction to levels below the significance thresholds would not be possible.
>
> Implementation of **Mitigation Measure M-AQ-4b** (Temporary Shoreside Power for Large, Private Yachts at Pier 27) would reduce emissions of ROG, NOx, PM_{10}, and $PM_{2.5}$ from those presented in Table 5.8-7, but even with shoreside power use, it is assumed these vessels would still use auxiliaries while the main engines are running. While this mitigation

measure would provide an incremental reduction in emissions, a reduction to levels below the significance thresholds would not be possible.

Implementation of **Mitigation Measure M-AQ-4c** (Alternative Low-Emission Fuels for Large Private Yachts and Race-Sponsored Vessels) would reduce emissions of hydrocarbons and PM_{10} from vessels. While this mitigation measure would provide an incremental reduction in emissions, a reduction to levels below the significance thresholds would not be possible.

Implementation of **Mitigation Measure M-AQ-4d** (Return of Pier 27 to the Port Within One Month after Completion of the Match for Reconnection of Shoreside Power) would expedite construction of Phase 2 cruise terminal improvements, including the installation of upgraded shoreside power. This measure could potentially allow shore power to be reconnected in time for the 2014 cruise season, reducing the duration of the decommissioning of shoreside power for cruise ships. This mitigation measure would preclude the feasibility of the Pier 27 Shed Variant of the James R. Herman Cruise Terminal.

Implementation of **Mitigation Measure M-AQ-4e** (Long-term Shoreside Power at Pier 70) would offset operational emissions of ROG, NOx, PM_{10}, and $PM_{2.5}$ from those presented in Table 5.8-7. Emissions of NOx, PM_{10}, and $PM_{2.5}$ in 2012 and 2013 would be reduced to a less than significant level. Emissions of ROG, primarily generated by private spectator vessels and Tier 4 race support vessels, would remain significant and unavoidable.

Therefore, this impact, while limited to the duration of the few months in 2012 and 2013 when the AC34 events are scheduled, is considered *significant and unavoidable with mitigation*.

These revisions do not change the analysis or conclusions presented in the EIR, as explained in the discussions below analyzing the emissions reductions for each of these updated and augmented measures.

In response to this additional information, Mitigation Measure M-AQ-4, page 5.8-34, is amended as indicated below to include not only race sponsored vessels but also race support vessels as a condition of venue leases (new text is underlined). This text change does not alter the findings of significance for air quality impacts, either prior to, or after mitigation.

Mitigation Measure M-AQ-4a: Emission Controls for Race-Sponsored Spectator and Support Vessels

The project sponsor shall require all contracts for race-sponsored spectator vessels and venue leases for race support vessels to meet U.S. EPA Tier 3 or better engine standards for marine diesel engines, as feasible. Tier 3 and Tier 4 engines would reduce ROG and NOx emissions by approximately 42 percent over Tier 1 engines and PM emissions by 78 percent over Tier 1 engine emissions.[37]

Should it be determined by the project sponsor that availability of vessels with Tier 3 or Tier 4 engines for use as race-sponsored spectator vessels renders this mitigation measure infeasible, this lack of availability must be demonstrated, to the satisfaction of the Environmental Review Officer, indicating that the project sponsor has complied with this mitigation measure to the extent feasible and why full compliance with the mitigation measure is infeasible.

Analysis of Mitigation Measure M-AQ-4a: For the purposes of this mitigation measure, "feasibility" refers to the availability of commercial ships that meet Tier 3 and Tier 4 standards that are available for lease to the project sponsor. It should be noted that it is likely that ships used for race-sponsored spectator vessels would be limited to those locally available within the San Francisco Bay Area so as to avoid additional emission impacts associated with bringing distant berthed vessels into use. Therefore, this mitigation measure would likely have limited feasibility. As a result, the reduction of ROG emissions by 98 percent, NOx emissions by 94 percent, and $PM_{2.5}$ emissions by 85 percent as necessary to reduce AC34 operational emissions to less-than-significant levels is not reasonably attainable, and this impact is identified as significant and unavoidable.

This measure would only apply to commercial, race-sponsored vessels that would be under the contract authority of the project sponsor and could not be implemented on private vessels outside of the existing implementation schedule for marine diesel engines. Even so, the emissions reduction needed to avoid significant criteria air pollutant impacts would not be attainable because the predominant source of the emissions would be from private and race-sponsored spectator vessels (i.e., charters) for which emissions control is regulated at the state and federal levels. Therefore, reductions to levels below the significance thresholds would not be possible and this impact would be *significant and unavoidable with mitigation.*

The following four augmented components of mitigation measures are inserted to page 5.8-35, following *Analysis of Mitigation Measure M-AQ-4a*, to supplement Mitigation Measure M-AQ-4a, as indicated below (new text is underlined). As described above, this text change does not alter the findings of significance for air quality impacts, either prior to, or after mitigation.

Mitigation Measure M-AQ-4b: Temporary Shoreside Power for Large Private Yachts at Pier 27

The project sponsor shall install shoreside electrical power at Pier 27 to serve large, private spectator vessels during the AC34 2013 events. Shoreside power shall be supplied by a publicly owned utility supplying hydropower, if available at rates and service levels equivalent to a private utility.

If shoreside power is available at berths used by large, private spectator vessels, the project sponsor shall impose as a requirement in any berthing contract with large, private spectator vessels a requirement to use shoreside power, if such vessels are so equipped.

Analysis of Mitigation Measure M-AQ-4b: Emissions presented in Table 5.8-7 for large private yachts assume that these vessels would operate primary engines 4 hours per day and auxiliary engines 8 hours per day. Provision of temporary shoreside power at Pier 27 during the AC34 events, assuming these vessels are able to utilize shoreside power at berth, is estimated to reduce use of auxiliary engine from 8 hours to 4 hours and would result in emissions reductions. Emissions are estimated to be reduced from 4.9 to 4.3 tons per year for ROG (a 12.2 percent reduction), from 54.2 to 50.3 tons per year for NOx (a 7.1 percent reduction), and from 2.2 to 2.0 tons per year for both PM_{10} and $PM_{2.5}$ (an 8.8 percent reduction). These reductions assume these vessels would still use auxiliaries while the main engines are running. While this mitigation measure would provide an incremental reduction in emissions, a reduction to levels below the significance thresholds would not be possible.

Mitigation Measure M-AQ-4c: Alternative Low-Emissions Fuels for Large Private Yachts and Race-Sponsored Vessels

The project sponsor shall impose as a requirement in any berthing contract with large, private spectator vessels and in any contract with race-sponsored vessels, a requirement to use B20 biodiesel or higher, unless precluded by engine type or warranty, or availability. If biodiesel is precluded, such contracts shall require use of California on-road diesel.

Should it be determined by the project sponsor that availability or compatibility of biodiesel with vessel engines or warranties renders this mitigation measure infeasible, this lack of availability or compatibility must be demonstrated, to the satisfaction of the Environmental Review Officer, indicating that the project sponsor has complied with this mitigation measure to the extent feasible and why full compliance with the mitigation measure is infeasible.

Analysis of Mitigation Measure M-AQ-4c: The potential emissions reductions based on requiring all large private yachts to use either California on-road diesel or 20 percent biodiesel (B20) blended with CA on-road diesel were estimated, and the results are summarized in **Table 5.8-7A**. Higher percentage biodiesel was not analyzed on the understanding that biofuel blends higher than B20 may cause operational problems and/or engine warranty nullifications unless approved by the manufacturer. While this mitigation measure would provide an incremental reduction in emissions, a reduction to levels below the significance thresholds would not be possible.

TABLE 5.8-7A [NEW]
EMISSIONS BENEFITS FROM ALTERNATIVE FUELS

Fuel	Percent Reduction			
	HC	CO	NOx	PM
CA On-road Diesel (15 ppm S)	N/A	N/A	0%	4%
B20 (clean diesel blend)	13%	8%	-3%	10%

NOTES:
Original analysis assumed 225 ppm S content diesel fuel.
N/A= not available as ARB Harbor Craft rule only evaluated NOx and PM (http://www.arb.ca.gov/regact/2007/chc07/appb.pdf, pages B-22 & B-23)
CA On-road Diesel: 15ppm Sulfur content, effective since 2007
B20 (clean diesel blend): 20% soy-based fuel blending with clean diesel (meeting CA on-road standard), as per ARB biodiesel guidance (http://www.arb.ca.gov/fuels/diesel/altdiesel/20111003Biodiesel%20Guidance.pdf).
Negative % reduction for NOx indicates that NOx increases by burning biodiesel

Mitigation Measure M-AQ-4d: Return Pier 27 to the Port Within One Month after Completion of the Match for Reconnection of Shoreside Power

The project sponsor shall reconnect shoreside power and complete Phase 2 construction of the James R. Herman Cruise Terminal and reconnection of shoreside power at Pier 27 not later than April 1, 2014, if feasible. To accommodate construction of Phase 2 improvements to the Cruise Terminal and reconnection of shoreside power, the Event Authority shall return Pier 27 to the Port within one month of the completion of the Match.

Subsequently, the Port shall complete Phase 2 construction of the James R. Herman Cruise Terminal in 2013 to 2014 and reconnect shoreside power at Pier 27 no later than April 1, 2014, if feasible.

Should it be determined by the project sponsor that Phase 2 construction of the James R. Herman Cruise Terminal and reconnection of shoreside power at Pier 27 by April 1, 2014 is infeasible, the project sponsor shall document, to the satisfaction of the Environmental Review Officer, that the project sponsor has complied with this mitigation measure to the extent feasible and indicate why full compliance with the mitigation measure is infeasible.

Analysis of Mitigation Measure M-AQ-4d: This measure could potentially allow shore power to be reconnected in time for the 2014 cruise season, reducing the duration of the decommissioning of shoreside power for cruise ships. However, due to the uncertainties associated with this measure, the potential emissions reductions associated with it are not quantified and the impact of operational criteria pollutant emissions associated with AC34 would remain significant and unavoidable. Implementation of this mitigation measure would preclude the feasibility of the Pier 27 Shed Variant.

The Port of San Francisco, in consultation with the Event Authority, has identified an updated mitigation measure that could further reduce air quality impacts associated with the AC34 and Cruise Terminal projects, particularly impacts associated with the temporary decommissioning of shoreside power at Piers 27-29. At present, specific details of this mitigation measure are still being finalized, but would consist of the offsite installation of shoreside power at an alternate location (Pier 70) on Port property to offset emissions associated with decommissioning of shoreside power at Pier 27.

The Port of San Francisco has investigated potential offsite shoreside power projects at the Pier 94 bulk terminal and the Pier 70 shipyard which includes the Port's Drydock #2. The provision of shoreside power to Pier 94 bulk terminal was determined to be infeasible as the result of prohibitive costs to retrofit bulk cargo vessels for shoreside power capability. However, at the Pier 70 shipyard, there is currently available high voltage and ship connection capabilities, making this a workable candidate for provision of an off-site shoreside power mitigation project. The BAE Systems Facility at Pier 70 has scheduled maintenance for several T-AKE military support vessels and cruise ships over the next six years. These vessels are scheduled to be laid-up for multiple days within the dry dock or at nearby piers during which time diesel engines would normally power ship systems. Provision of shoreside power at Pier 70 for dry-docked vessels would preclude the need for diesel engine operations and thus result in an offset of project related emissions of ROG, NOx, PM_{10} and $PM_{2.5}$. In response to these new investigations, the following new text is added to the EIR text (new text is underlined) under Impact AQ-4 on page 5.8-35 following the new text added above "Analysis of Mitigation Measure M-AQ-4d:"

Mitigation Measure 4e: Long-term Shoreside Power at Pier 70

The project sponsor shall develop shoreside power at an offsite location that would consist of constructing 12 MW of shoreside power at the Port's Drydock #2 at Pier 70 to serve large cruise, military and other vessels while they are in drydock.

Should it be determined by the project sponsor that this measure is infeasible, the project sponsor shall document, to the satisfaction of the Environmental Review Officer, that the project sponsor has complied with this mitigation measure to the extent feasible and indicate why full compliance with the mitigation measure is infeasible.

Analysis of Mitigation Measure M-AQ-4e: Providing shoreside power for ships brought in for unscheduled maintenance would eliminate the need for auxiliary loads to be supplied by on-board diesel generators. The feasibility of using shore power was assessed for ships undergoing maintenance at the BAE Systems Facility in San Francisco and is presented in Appendix AQ-6 of the Final EIR. Using the low-end projected maintenance schedule for the BAE Systems Facility, the potential emission reduction using shore power for these vessels was conservatively estimated for year 2013, the year for which decommissioning of shore side power at Pier 27 was attributed to AC34 operations. This measure would result in year 2013 emissions reductions of 11 tons of ROG, 215 tons of NOx, and 6 tons per year of PM_{10} and $PM_{2.5}$. These reductions provide for a complete offset of all emissions associated with the disruption of shoreside power at Pier 27 as a result of operation of AC34 events. However, due to funding uncertainties regarding this mitigation measure, this impact remains significant and unavoidable.

Impact AQ-5 in the Draft EIR determined that operation of the AC34 events would result in significant and unavoidable risk and hazards impacts, and subsequent to the publication of the Draft EIR, the project sponsors have further examined the feasibility of augmenting the identified mitigation measure. In response to these comments, the EIR text on page 5.8-37 is revised starting with the fourth paragraph and continuing on page 5.8-38 as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

Impact Summary

Based on conservative assumptions, operations of the proposed America's Cup races and events would result in incremental cancer risks, acute hazard indices, and localized $PM_{2.5}$ concentrations in excess of significance thresholds adopted by the BAAQMD and would represent a significant impact on localized air quality. **Mitigation Measure M-AQ-4a through M-AQ-4e** ~~(Emission Controls for Race-Sponsored Spectator Vessels)~~ would reduce emissions from race-sponsored spectator and support vessels, provide shoreside power for large private yachts at Pier 27, require low-emissions fuels for large private yachts and race-sponsored vessels, accelerate the reconnection of long-term shoreside power at Pier 27, and provide off-site emissions reduction by providing shoreside power at

Pier 70. **Mitigation Measure M-AQ-5** (Clean Sources ~~Diesel Engines~~ for Temporary Power at Venues), below, would reduce emissions from diesel generators. However, identified mitigation measures would not reduce with certainty the predicted impact to a less-than-significant level, and therefore, the impact would be *significant and unavoidable with mitigation.*

Mitigation Measure M-AQ-5: ~~Clean Diesel~~ Clean Sources for Temporary Power at Venues

The project sponsor shall ensure that all ~~diesel generators~~ electricity used at AC34 event and viewing locations is supplied by a public utility that provides hydropower, if available, or available alternative power supply. If use of utility-supplied electricity is infeasible, the project sponsor shall utilize natural gas or propane-powered generators, where power demands allow. If use of propane or natural gas generators is infeasible then the project sponsor shall ensure that all diesel generators at AC34 event and viewing locations shall ~~will~~ conform to a level of performance equivalent to a Tier 4 interim, or Tier 2/ Tier 3 (as applicable, depending on power rating) engine fitted with a CARB-verified diesel emissions control ~~Level 3 Verified Diesel Emissions Control (~~ (VDEC~~)~~, which would reduce diesel particulate emissions by at least 85 percent. ~~Alternatively, natural gas or gasoline-powered generators may be used in lieu of diesel generators, thus eliminating DPM emissions from generators, as feasible.~~

Should it be determined by the project sponsor that utility supplied electricity or ~~"tiered" diesel engine~~ generators powered by natural gas or propane are unavailable or infeasible ~~gasoline-powered generators would not provide the necessary power demands required~~, this lack of availability or infeasibility must be demonstrated to the satisfaction of the Environmental Review Officer, indicating that the project sponsor has complied with this mitigation measure to the extent feasible and why full compliance with the mitigation measure is infeasible.

Post Mitigation Assessment of AC34 Operational Impacts

Mitigation Measures M-AQ-4a through M-AQ-4e and Mitigation Measure M-AQ5 would each incrementally reduce the significant operations-related impacts identified in Impact AQ-4 and Impact AQ-5 of the Draft EIR. **Table 12.13-4** presents an estimate of the overall reduction in operational emissions for both 2012 and 2013 with implementation of all identified mitigation measures. The estimates in Table 12.13-4 contain a number of assumptions regarding vessel operations and percentage contributions from various sources and are presented to provide decision makers with a rough order of magnitude estimate of potential benefits of these measures.

As indicated in this table, annual emissions of NOx, PM_{10} and $PM_{2.5}$ in both 2012 and 2013 would be reduced to below significance thresholds. While emissions of ROG in both 2012 and 2013 would also be reduced, annual emissions of ROG in 2012 and 2013 would remain significant and unavoidable as identified in the Draft EIR. Further, due to funding uncertainties associated with implementation of Mitigation Measure M-AQ-4e (Long-term Shoreside Power at Pier 70), this impact remains significant and unavoidable.

TABLE 12.13-4
MITIGATED AC34 OPERATIONAL EMISSIONS

	Maximum Annual Emissions (short tons/year)			
	ROG	**NOx**	**PM10**	**PM2.5**
2012 Race Operations				
Pre Mitigation DEIR Total (2012)	124	35	20	18
Pre-Mitigation Revised FEIR Total (2012)	23	24	1	1
Reduction from M-AQ-4a[a]	0.2	1.3	<0.1	<0.1
Reduction from M-AQ-4b	<0.1	<0.1	<0.1	<0.1
Reduction from M-AQ-4c	1.2	-.44	.02	.02
Reduction from M-AQ-4d	<0.1	<0.1	<0.1	<0.1
Reduction from M-AQ-4e[b]	9	131	5	5
Reduction from M-AQ-5[b]	0.17	1.9	0.06	0.05
Mitigated 2012 Total	12	-110	-5	-5
BAAQMD Threshold	10	10	15	10
Above Threshold?	Yes	No	No	No
2013 Race Operations				
Pre Mitigation DEIR Total (2013)	372	183	67	62
Pre-Mitigation Revised FEIR Total (2013)	98	176	7	7
Reduction from M-AQ-4a[a]	0.2	3.6	0.4	0.4
Reduction from M-AQ-4b	0.6	3.9	0.2	0.2
Reduction from M-AQ-4c	4.9	-2.8	0.4	0.4
Reduction from M-AQ-4d	<0.1	<0.1	<0.1	<0.1
Reduction from M-AQ-4e	11	215	6	6
Reduction from M-AQ-5[c]	1.2	12.8	0.38	0.35
Mitigated 2013 Total	80	-49	0	0
BAAQMD Thresholds	10	10	15	10
Above Threshold?	Yes	No	No	No

NOTES:

[a] Low-emission race support vessel fleet are accounted for in pre-mitigation total. Therefore, this reduction addresses race sponsored spectator vessels and assumes 50 percent of Race sponsored spectator vessels would be Tier 3 or better with mitigation.

[b] Total reduction in NOx from this measure is estimated to be 176 tons per year, but 45 tons per year is credited to offset emissions associated with construction of the cruise terminal. See Table 12.10-3 below.

[c] Assumes 50 percent electrical power provided by public utility.

SOURCE: ENVIRON/ESA, 2011

Augmented Cruise Terminal Construction Mitigation Measures

In response to these comments, the EIR text under Impact AQ-10 on page 5.8-46 is revised by inserting the following text in the second paragraph (deleted text is shown as ~~strikethrough~~ and new text is underlined):

Impact Summary

Phase 2 construction of the Cruise Terminal project would emit NOx above BAAQMD thresholds of significance, and therefore the impact in relation to air quality standards would be *significant*. **Mitigation Measure M-AQ-4d** (Return Pier 27 to the Port Within One

Month after Completion of the Match for Reconnection of Shoreside Power) is identified to accelerate replacement of shoreside power for the 2014 cruise season, reducing the duration of emissions incurred by the loss of shoreside power during construction. **Mitigation Measure M-AQ-4e** (Long-term Shoreside Power at Pier 70) would offset the significant regional NOx impact identified in Impact AQ-10. Further, ~~i~~Implementation of the Clean Construction Ordinance and **Mitigation Measures M-AQ-2a** (Construction Vehicle Emissions Minimization), ~~and~~ **M-AQ-2b** (Off-Road Construction Equipment), **M-AQ-2c** (Off-Road Construction Equipment - Electricity Use), **M-AQ-2d** (Off-Road Construction Equipment - Best Management Practices), and **M-AQ-2f** (Fuels for Off-Road Construction Equipment) would further reduce construction exhaust emissions. ~~However,~~ NOx emissions associated with decommissioning of shoreside power ~~w~~could be reduced to below ~~exceed~~ BAAQMD significance thresholds. However, due to funding uncertainties regarding this mitigation measure this impact is *significant and unavoidable.*

In response to these comments, the EIR text under Impact AQ-10 on page 5.8-46 is revised by inserting the following text after "Impact Summary" (new text is underlined):

Mitigation Measure M-AQ-4d: Return Pier 27 to the Port Within One Month after Completion of the Match for Reconnection of Shoreside Power (see above)

Mitigation Measure M-AQ-4e: Long-term Shoreside Power at Pier 70 (see above)

Analysis of Mitigation Measure M-AQ-4e: Providing shoreside power for ships brought in for unscheduled maintenance and would eliminate the need for auxiliary loads to be supplied by on-board diesel generators. The feasibility of using shore power was assessed for ships undergoing maintenance at the BAE Systems Facility in San Francisco and is presented in Appendix AQ-6 of the Final EIR. Using the low-end projected maintenance schedule for the BAE Systems Facility, the potential emission reduction using shore power for these vessels was conservatively estimated for year 2012, the year for which decommissioning of shore side power at Pier 27 was attributed to Cruise Terminal construction. This measure would result in year 2012 emissions reductions of 9 tons of ROG, 176 tons of NOx, and 5 tons per year of PM_{10} and $PM_{2.5}$. These reductions provide for more than enough to offset all emissions associated with the disruption of shoreside power at Pier 27 as a result of construction of the new cruise ship terminal. However, due to funding uncertainties regarding this mitigation measure, this impact remains significant and unavoidable.

Mitigation Measure M-AQ-2a: Construction Vehicle Emissions Minimization (see above)

Mitigation Measure M-AQ-2b: Off-Road Construction Equipment (see above)

Mitigation Measure M-AQ-2c: Off-Road Construction Equipment - Electricity Use (see above)

Mitigation Measure M-AQ-2d: Off-Road Construction Equipment - Best Management Practices (see above)

Mitigation Measure M-AQ-2f: Fuels for Off-Road Construction Equipment (see above)

Post Mitigation Assessment of Cruise Terminal Construction Impacts

Mitigation Measures M-AQ-2a through M-AQ-2d and M-AQ-2f would each incrementally reduce the significant construction-related impacts identified in Impact AQ-10 (NOx emissions in excess of 54 pounds per day). However, as indicated in Table 5.8-9 of the EIR (page 5.8-48), Phase 2 construction of the Cruise Terminal would result in NOx emissions below the BAAQMD threshold, and the major source of NOx emissions causing the exceedance of the BAAQMD threshold is the decommissioning of shoreside power. Mitigation Measure M-AQ-4d would reduce the duration of emissions incurred by the loss of shoreside power by accelerating the reconnection of shoreside power at Pier 27, but there remain some uncertainties associated with the feasibility of this measure.

Table 12.13-5 presents an estimate of the overall reduction in operational emissions for both 2012 and 2013 with implementation of all identified mitigation measures Implementation of Mitigation Measure M-AQ-4e alone would more than offset all emissions associated with the disruption of shoreside power at Pier 27 as a result of construction of the new cruise ship terminal. However, due to funding uncertainties regarding this mitigation measure, this impact remains significant and unavoidable.

TABLE 12.13-5
MITIGATED CRUISE TERMINAL CONSTRUCTION EMISSIONS

	Maximum Annual Emissions (short tons/year)			
	ROG	**NOx**	**PM10**	**PM2.5**
Cruise Terminal Construction				
Pre Mitigation DEIR Total (2012)	4	27	1	1
Pre-Mitigation Revised FEIR Total (2012)	5	55	2	1
Reduction from M-AQ-2a, 2b, 2c, 2d, 2f, 4d	(a)	(a)	(a)	(a)
Reduction from M-AQ-4e (b)	0	45	0	0
Mitigated 2012 Total	5	10	2	1
BAAQMD Threshold	10	10	15	10
Above Threshold?	No	No	No	No

NOTES:

(a) Reductions from these sources not quantified because the NOx reduction potential is minimal.

(b) Total reduction in NOx from this measure is estimated to be 176 tons per year, but 131 tons per year is credited to offset emissions associated with operations of AC34 events during 2012. Reductions in ROG, PM10 and PM2.5 are all credited to operations of AC34 events during 2012. See Table 12.10-2 above.

SOURCE: ENVIRON/ESA, 2011

Pier 27 Shed Variant

Implementation of one of the augmented mitigation measures would make the Pier 27 Shed Variant (see EIR, Chapter 3, page 3-114) infeasible. The Pier 27 Shed Variant assumed that the core and shell of the cruise terminal would not be constructed until after the full completion of the AC34 events; full construction of the cruise terminal, and possibly demolition of the existing Pier 27 shed, would not occur until 2014, and operation of the cruise terminal would be delayed for one year. Reconnection of shoreside power would also be delayed by one year. Mitigation Measure M-AQ-4d (Return Pier 27 to the Port One Month after the Completion of the Match for Reconnection of Shoreside Power)_would require that the Event Authority return Pier 27 to the Port of San Francisco within one month after the completion of the Match and that the Port build Phase 2 of the Cruise Terminal in 2013 to 2014 to reinstall shoreside power by April 1, 2014. Implementation of this measure would reduce the duration of air quality impacts generated by the decommissioning of shoreside power and would also comply with state regulations for providing shoreside power for cruise ships. Consequently, construction of the cruise terminal and the delayed reconnection of shoreside power after the AC34 events as envisioned in this variant could not feasibly occur with implementation of this mitigation measure.

Other Mitigation Measures Considered

Other suggested mitigation measures provided by the commenters were determined to be infeasible to implement. For example, requiring cruise ships to make fuel changes while in port was suggested. Cruise ships entering port would already have fuel in tanks, and benefits from addition of lower sulfur marine distillate would not result until the existing fuel in tanks was combusted, by which time the ship would likely be at another port outside of the air basin. Additionally, sulfur (SO_2) emissions are not a significant impact of the proposed project, so use of low sulfur fuels would not result in a lessening of impacts identified in the EIR. Implementation of zero emission water taxi's would require development of technology not available within the timeframe of the AC34 project. Mitigation Measure 4e would represent offsite mitigation in lieu of other suggested offsite mitigation proposals.

Commenters also suggested mitigating emissions through an in-lieu payment to an off-site mitigation program. With implementation of all mitigation measures, including Mitigation Measure 4e, the AC 34 project would exceed the BAAQMD's threshold for Reactive Organic Gas (ROG) emissions by 2 tons/year in 2012 and 70 tons/year in 2013, requiring an off-site mitigation program capable of displacing 72 tons of ROG emissions within the San Francisco Bay Area Air Basin. Consistent with CEQA Guidelines Section 15126.4(4), mitigation measures must have an essential nexus and rough proportionality to the project's significant impact. Neither the City nor the BAAQMD has established an offsite air quality mitigation program capable of directly attributing an in-lieu payment to a proportional decrease in a specified criteria pollutant. For example, the Carl Moyer Program is a statewide program funding cleaner technologies. Monies are provided through grant applications and may fund a diversity of projects that could reduce various pollutants. However, there currently exists no mechanism to guarantee that in-lieu payments to such a program would result in a proportional reduction in ROG emissions, for which the project's emissions are determined to be significant. However, Mitigation Measure 4e would represent offsite mitigation in lieu of this or other suggested offsite mitigation proposals. Based on the absence of an offsite mitigation program that can quantitatively account for in-lieu funds that provide a proportional reduction in the project's ROG emissions, in-lieu payments to offsite mitigation programs are not considered a feasible mitigation measure.

12.13.8 Feasibility Determination of Proposed Air Quality Mitigation [AQ-6]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-238
O-ACEC-239
O-TIRN-22
O-TIRN-23
O-WW-36

- The word "feasible" should be clearly defined or eliminated from this and all mitigations. The EIR must provide guidelines for an Environmental Review Officer and define a public process for any exceptions to mitigations. [O-ACEC-238, O-ACEC-239, O-TIRN-22, O-TIRN-23]
- The limitation of Mitigation Measure M-AQ-4 to "feasible" vessels defeats the purpose of the measure. The EIR should use CEQA's definition of the word "feasible" and not substitute its own definition. [O-WW-36]

Response AQ-6

Because the proposed project would result in significant and unavoidable impacts, per CEQA Section 15126.4, the EIR shall describe all feasible measures. Therefore, feasibility of potential mitigation measures must be considered in an adequate analysis pursuant to CEQA. CEQA Guidelines Section 15364 states "'Feasible' means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." With respect to development of mitigation measures for an EIR, "feasible" mitigation measures generally refer to actions that are physically and technically practical and capable of being implemented within the context of a proposed project. However, the decision-makers could choose to reject certain mitigation measures identified in an EIR if they determine and make specific findings that certain mitigation measures are not feasible for economic, legal, social, technological, or other reasons.

While some measures may appear feasible at this point in the planning process, there may arise unforeseen constraints to implementation in the future. Consequently, the role of the Environmental Review Officer, as the head of the Environmental Planning group at the Planning Department has overall responsibility for CEQA compliance in San Francisco, including implementation of the Mitigation Monitoring and Reporting Program. The process by which the Environmental Review Officer agrees to the feasibility of mitigation measures identified in the EIR is based on standard practice for CEQA compliance combined with consultation with professionals and experts in the field. Given the rapidly changing technological environment, the mitigation measures presented in the Air Quality section, as revised and augmented in this Comments and Responses document, represents the most up-to-date information available at the time of preparation of the EIR. Recognizing the degree of uncertainty associated with the "feasibility" of all or parts of these measures, the EIR concludes that air quality impacts would remain significant and unavoidable, even with implementation of identified mitigation measures.

The limitation for Mitigation Measure M-AQ-4 for race-sponsored spectator vessels to those locally available within the San Francisco Bay Area, as discussed on page 5.8-34 of the EIR is to avoid additional emission impacts associated with bringing distant berthed vessels into the San Francisco Bay.

12.13.9 People Plan and Sustainability Plan [AQ-7]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-240
O-TIRN-24

- The People Plan and Sustainability Plan must be included in the EIR, as well as evidence they will actually be implemented. [O-ACEC-240, O-TIRN2-24]

Response AQ-7

Under Impact AQ-6, regarding the consistency of the AC34 project with applicable air quality plans, the EIR discusses the Sustainability Plan and People Plan on pages 5.8-39 and 5.8-40 not as mitigation but as a part of the proposed project. Although the Sustainability Plan and People Plan were in draft form at the time of the EIR, their contents were summarized in the Draft EIR (and updated in Chapter 11 of this document) as they relate to the goals of the Clean Air Plan. Updated drafts of these plans will continue to occur as, due to the nature of a large-scale event, both plans will mature over time with input from stakeholders, especially as new knowledge is gained and innovations are developed to improve event sustainability performance. Please see Chapter 11 under Project Updates for updated description of the People and Sustainability Plans; Section 12.4, Response PD-7, for a more detailed discussion of the role of the implementation plans as components of the AC34 project; and Section 12.6, Response IO-4, for a discussion of the relationship between the implementation plans and mitigation measures.

12.13.10 Cumulative Air Quality Impacts [AQ-8]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-245
O-ACEC-246
O-TIRN-27

- Because the EIR overlooks several potential mitigations, the conclusion that cumulative air quality impacts are significant and unavoidable impact is unsupported. Proposed mitigations are inadequate and the cruise terminal analysis should include 2012 and 2013 emissions. [O-ACEC-245, O-ACEC-246, O-TIRN2-27]

Response AQ-8

Impact C-AQ-2, pages 5.8-65 to 5.8-68, of the EIR identifies a significant and unavoidable cumulative air quality impact based on the methodology of the BAAQMD. Comments received during the comment period have identified supplemental mitigation measures, some of which have been incorporated into the project. However, given the relatively large amount of predicted emissions associated with the proposed projects which exceed BAAQMD significance thresholds by a factor of more than 8 and other cumulative projects in the area which would have potentially significant unmitigated air quality impacts, mitigation of cumulative impacts to a less than significant level would not occur even with the updated and augmented mitigation measures identified in Response AQ-5, above.

12.13.11 Air Quality Impacts of Proposed Transportation Mitigation Measures [AQ-9]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-TIRN-36
O-TIRN2-38
O-ACEC-184
O-WW-18

- Emissions based on transit type must be evaluated on a per-passenger and total passenger basis. Therefore, a paragraph in the Transportation and Circulation section that claims increasing ferry service would reduce emissions is inaccurate. [O-TIRN2-36; O-ACEC-184]
- The EIR cannot avoid quantifying air pollution due to mitigations just because the overall impact is still significant and unavoidable. CEQA requires the EIR disclose the magnitude of air quality impacts before determining if that impact is significant. [O-WW-18]
- The full range of transportation mitigation measures has not been considered, and there could be additional measures that would reduce air quality emissions from vehicular traffic. [O-TIRN2-38]

Response AQ-9

Mitigation Measures M-TR-18 through M-TR-25 of the EIR would all serve to increase the availability of public transit options to proposed AC34 project venues. While these measures to increase transit service would result in increased air emissions from service vehicles, with the exception of Mitigation Measures M-TR-20 which would increase BART service which has no direct air quality emissions, this increase would be more than offset by the reduction in emissions from light duty vehicles and trucks that may otherwise be driven to project venues. The potential magnitude of these emission reductions may be roughly estimated by consideration of the emissions presented in Table 5.8-7, page 5.8-33, of the Air Quality section of the EIR, as revised in Section 12.13.1, above. In Table 5.8-7, annual emissions from spectator traffic are estimated to be approximately 5.1 percent of total project emissions of reactive organic gases (ROG) and 5.7 percent of total project emissions of oxides of nitrogen (NOx). Emissions of particulate matter from spectator vehicles would be 14.3 percent of total project emissions.

Emissions reduction estimates published by the California Air Pollution Control Officers Association[12] (CAPCOA, 2010) indicates that the effectiveness of increased transit service frequency can reduce vehicle miles traveled by up to 2.5 percent with a corresponding reduction in emissions. Conservatively, assuming this level of reduction, project ROG emissions from spectator vehicles would decline from 5 tons per year to 4.88 tons per year in 2013. These emission reductions would not be sufficient to reduce the total year 2013 project emissions of ROG with implementation of all updated and augmented mitigation measures to (80 tons per year) to a less than significant level. This analysis further substantiates the findings of the EIR that the marginal emissions decreases realized from Mitigation Measures M-TR-18 through M-TR-25 would not change the outcome of the air quality analysis described in Section 5.8.

In response to these comments, the text in three places in the EIR on pages 5.6-95, 5.6-97 and 5.6-98 is amended as indicated below to further clarify the extent of potential emissions reductions from increased ferry service identified in Mitigation Measures M-TR-21, M-TR-22, and M-TR-23 (deleted text is shown as ~~strikethrough~~ and new text is underlined). This text change does not alter the findings of significance for transportation or air quality impacts, either prior to, or after mitigation.

> ***Impacts of Mitigation Measure.*** While the identified mitigation measure would reduce transportation impacts, any increase in ferry or bus service would result in an increase in air quality emissions from those sources. However, those increases in emissions ~~would~~ may partially be offset by a reduction in vehicle emissions associated with the reduction in vehicle traffic because of the increased availability of transit. The extent of the increase in emissions and any offset reduction are not quantified in this EIR because the results would not change the outcome of the air quality analysis described in Section 5.8. Further, consistent with CEQA Guidelines 15126.4, the effects of mitigation measures shall be discussed but in less detail than the significant effects of the project as proposed.

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[12] CAPCOA, Quantifying Greenhouse Gas Mitigation Measures, August 2010.

12.14 Greenhouse Gases

12.14.1 Overview of Comments on Greenhouse Gases

The comments and corresponding responses in this section cover topics in Chapter 5, Section 5.9, of the EIR. These include topics related to:

- GG-1, Regulatory Framework
- GG-2, AC34 and Cruise Terminal Greenhouse Gas (GHG) Emissions Impacts
  - GG-2a, Consistency with San Francisco's Strategies to Address Greenhouse Gas Emissions
  - GG-2b, Decommissioning of Shoreside Power
  - GG-2c, Private Spectator Vessel-Generated GHG Emissions
  - GG-2d, AC34 Spectator-Generated GHG Emissions
  - GG-2e, GHG Emissions Generated by Construction of GGNRA Temporary Facilities
- GG-3, People Plan and Sustainability Plan

12.14.2 Regulatory Framework [GG-1]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

A-MCCDA-03

- The EIR should address how AC34 is consistent with *Marin Countywide Plan* goals for greenhouse gas emission reduction targets. [A-MCCDA-03]

Response GG-1

In response to this comment, the following text has been inserted on EIR page 5.9-9 after the "Local Regulations" heading (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> ***Marin Countywide Plan***
>
> The *Marin Countywide Plan* guides the conservation and development of Marin County. Watershed functions, water quality, riparian habitat, wetlands, and baylands are all addressed in the Natural Systems and Agriculture Element. The topics addressed in this Element are interrelated, as are all the components of natural systems.
>
> Most of the policies in the Natural Systems and Agriculture Element, "Atmosphere and Climate" section of the *Marin Countywide Plan* are not applicable to either (1) greenhouse gas emissions emitted by the AC34 project, or (2) CEQA analysis. The following policy and implementing programs of the *Marin Countywide Plan* Natural Systems and Agriculture Element are relevant to the proposed project:

> *AIR-4.1 Reduce Greenhouse Gas Emissions.* Adopt practices that promote improved efficiency and energy management technologies; shift to low-carbon and renewable fuels and zero emission technologies.
>
> *AIR-4.b Reduce Greenhouse Gas Emissions Resulting from Transportation.* Increase clean-fuel use, promote transit-oriented development and alternative modes of transportation, and reduce travel demand. (Also see TR-4, AIR-3, DES-2, HS-2, HS-3, CD-2, CD-3, and EC-1.)
>
> *AIR-4.c Reduce Methane Emissions Released from Waste Disposal.* Encourage recycling, decrease waste sent to landfills, require landfill methane recovery, and promote methane recovery for energy production from other sources. (See PFS-3.)
>
> *AIR-4.g Work with Bay Area Governments to Address Regional Climate Change Concerns.* Play a leading role to encourage other local governments to commit to addressing climate change. Participate in programs such as the Cities for Climate Protection Campaign to address local and regional climate change concerns.

This revision does not change the analysis or conclusions presented in the EIR.

Marin County greenhouse gas emission targets are not addressed in the EIR. However, as stated below in Response GG-2a, the proposed project would be consistent with San Francisco's *Strategies to Reduce Greenhouse Gas Emissions*, which BAAQMD considers "aggressive GHG reduction targets and comprehensive strategies help the Bay Area move toward reaching the State's AB 32 goals."[1]

Given that no AC34 primary or secondary venues are proposed for Marin County, the project sponsor would have no direct control over greenhouse gas emissions in that region. Nonetheless, as described below and in Section 5.9 of the EIR, the proposed project would include several provisions to encourage the use of mass transit, reduce emissions associated with waste, coordinate with local and regional agencies, and engage in and/or promote sustainable operations—all of which would reduce greenhouse gas emissions in compliance with the policies listed above.

12.14.3 AC34 and Cruise Terminal Greenhouse Gas (GHG) Emissions Impacts [GG-2]

This topic is further subdivided into the following sub-topics:

- GG-2a, Consistency with San Francisco's Strategies to Address Greenhouse Gas Emissions
- GG-2b, Decommissioning of Shoreside Power
- GG-2c, Private Spectator Vessel-Generated GHG Emissions
- GG-2d, AC34 Spectator-Generated GHG Emissions
- GG-2e, GHG Emissions Generated by Construction of GGNRA Temporary Facilities

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[1] Letter from Jean Roggenkamp, BAAQMD, to Bill Wycko, San Francisco Planning Department, October 28, 2010, available online at http://www.baaqmd.gov/~/media/Files/Planning%20and %20Research/CEQA%20Letters/San%20Francisco%20GHG%20Reduction%20Strategy_10_28_2010%20-%20AY.ashx, accessed March 8, 2011.

GG-2a, Consistency with San Francisco's Strategies to Address Greenhouse Gas Emissions – Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-BAAQMD-09
O-WW-60
O-WW-61
O-WW-62
O-ACEC-247

- The Draft EIR does not address a number of policies that were included in the San Francisco Planning Department "Compliance Checklist for Private Development Projects." The BAAQMD recommends that all policies from the "Compliance Checklist for Private Development Projects" be discussed in the Draft EIR. [A-BAAQMD-09]
- The Draft EIR improperly concludes that greenhouse gas (GHG) emissions are less than significant because the project is consistent with the *City's Strategies to Address Greenhouse Gas Emissions* (Greenhouse Gas Reduction Strategy). [O-WW-60, O-ACEC-247]
- The AC34 project exceeds the scope of the City's *Strategies to Address Greenhouse Gas Emissions* and the Draft EIR should not rely upon compliance with the Greenhouse Gas Reduction Strategy to determine that the impact is less than significant. [O-WW-61]
- The Draft EIR's use of consistency with the Greenhouse Gas Reduction Strategy to determine a less-than-significant impact is not based on factual analysis. The BAAQMD CEQA Guidelines do not provide factual evidence for why consistency with a Greenhouse Gas Reduction Strategy represents an appropriate threshold of significance for project-level GHG impacts. Compliance with regulatory standards cannot be used for a CEQA level of significance, or substitute for a fact-based analysis. [O-WW-62]

Response GG-2a

The commenters state that the greenhouse gas (GHG) emissions analysis conducted for the Draft EIR should not rely upon San Francisco's *Strategies to Address Greenhouse Gas Emissions* to determine that the project's cumulative contributions to GHG emissions are less than significant. One commenter also indicates that the Draft EIR does not address policies from the San Francisco Planning Department "Compliance Checklist for Private Development Projects."

CEQA Guidelines and BAAQMD Air Quality CEQA Guidelines

As described in the EIR, Chapter 5.9, Section 5.9.3.2, Approach to Analysis, the Draft EIR used the Bay Area Air Quality Management District (BAAQMD) CEQA thresholds of significance for GHG emissions to determine if the proposed project would result in a potentially significant impact. The BAAQMD is the primary agency responsible for air quality regulation in the nine-county San Francisco Air Basin. As part of its role in air quality regulation, the BAAQMD has prepared the *CEQA Air Quality Guidelines* to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the San Francisco Air Basin. On June 2, 2010, the BAAQMD adopted new and revised CEQA air quality thresholds of significance and issued revised guidelines that supersede the 1999 air quality guidelines. The *2010 CEQA Air Quality Guidelines* provide, for the first time, CEQA thresholds of significance for greenhouse gas emissions. The

Office of Planning and Research (OPR) amendments to the CEQA Guidelines, as well as the BAAQMD's *2010 CEQA Air Quality Guidelines* thresholds of significance, have been incorporated into the GHG analysis conducted for the proposed project.

Consistent with state CEQA Guidelines Section 15183.5 (Tiering and Streamlining the Analysis of Greenhouse Gas Emissions), the BAAQMD has adopted a qualitative GHG threshold of significance that allows a lead agency to determine that a project's contribution of GHG emissions is less than significant if the lead agency finds that the project is consistent with a Qualified Greenhouse Gas Reduction Strategy. The BAAQMD *2010 CEQA Air Quality Guidelines,* Section 4.3, Greenhouse Gas Reduction Strategies, provides an interpretation of state CEQA Guidelines Section 15183.5 and further defines the requirements for a Qualified Greenhouse Gas Reduction Strategy as one that is consistent with the goals of Assembly Bill 32 and the California Climate Change Scoping Plan (AB 32). AB 32 requires that measures and regulations are implemented to reduce GHG emissions to 1990 levels by 2020. Therefore, the BAAQMD CEQA guidelines require that, for the adoption of a Qualified Greenhouse Gas Reduction Strategy, the strategy must show through quantitative analysis that a collection of plans, policies, and ordinances would reduce a City's GHG emissions to 1990 levels, consistent with the goals of AB 32. Section 4.3 of the BAAQMD CEQA guidelines provides the requirements for a Qualified Greenhouse Gas Reduction Strategy to meet the threshold of significance. The strategy must include the following elements:

- Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area.
- Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable. A GHG Reduction Strategy must establish a target that is adopted by legislation that meets or exceeds one of the following options, all based on AB 32 goals: reduce emissions to 1990 level by 2020; reduce emissions 15 percent below baseline emission level by 2020; or meet the plan efficiency threshold of 6.6 MT CO2e/service population/year.
- Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area.
- Specify measures or a group of measures, including performance standards that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.
- Establish a mechanism for monitoring the plan's progress.

Environmental review is required for each element of the strategy that applies to development projects.

Through regular monitoring and inventorying, the City has established GHG reduction limits for San Francisco to reduce emissions to 20 percent below 1990 levels by 2012. This is enforced by the San Francisco Greenhouse Gas Reduction Ordinance, which has requirements for City departments to prepare a climate action plan that assesses GHG emissions related to their activities, report the results of the assessments to the San Francisco Department of Environment, and prepare recommendation to reduce emissions. As reported, San Francisco's 1990 GHG emissions were approximately 8.26 million metric tons (MMT) CO_2e, and 2005 GHG emissions are estimated at 7.82 $MMTCO_2e$, representing an approximately 5.3-percent reduction in GHG emissions below 1990 levels.

Therefore, the BAAQMD CEQA thresholds of significance for a Qualified Greenhouse Gas Reduction Strategy are based on substantial evidence that a collective body of policies, programs, and regulations has measurably reduced GHG emissions below 1990 level, consistent with the goals of AB 32.

San Francisco's Strategies to Address Greenhouse Gas Emissions

Consistent with the BAAQMD requirements for a Qualified Greenhouse Gas Reduction Strategy, San Francisco's *Strategies to Address Greenhouse Gas Emissions*[2] identifies a number of mandatory requirements and incentives that have measurably reduced greenhouse gas emissions, including, but not limited to, increases in the energy efficiency of commercial buildings, implementation of a green building strategy, adoption of a zero waste strategy, a construction and demolition debris recovery ordinance, a mandatory composting ordinance, and water efficiency standards. The strategy also identifies 42 specific regulations for new development that would reduce a project's GHG emissions.

The BAAQMD reviewed San Francisco's *Strategies to Address Greenhouse Gas Emissions* and concluded that the strategy meets the criteria for a Qualified Greenhouse Gas Reduction Strategy as outlined in BAAQMD's *2010 CEQA Air Quality Guidelines* and stated that San Francisco's "aggressive GHG reduction targets and comprehensive strategies help the Bay Area move toward reaching the State's AB 32 goals, and also serve as a model from which other communities can learn."[3]

The City has shown substantial evidence, based on monitoring of emissions, that the collective body of City policy, regulations, and programs has resulted in measurable decreases in the GHG emissions such that the City meets and exceeds AB 32 goals, the standard by which the BAAQMD has determined with substantial evidence that GHGs are not cumulatively considerable. Therefore, because the regulations, policies, and ordinances contained within San Francisco's *Strategies to Address Greenhouse Gas Emissions* have quantitatively shown to reduce GHG emission levels to below 1990 levels, exceeding the policy requirements of AB 32, it was determined that the strategy was consistent with the BAAQMD CEQA guidelines and CEQA thresholds for GHG emission analysis.

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[2] San Francisco Planning Department, *Strategies to Address Greenhouse Gas Emissions in San Francisco,* 2010, available online at http://www.sfplanning.org/index.aspx?page=1570.

[3] Letter from Jean Roggenkamp, BAAQMD, to Bill Wycko, San Francisco Planning Department, October 28, 2010, available online at http://www.baaqmd.gov/~/media/Files/Planning%20and %20Research/CEQA%20Letters/San%20Francisco%20GHG%20Reduction%20Strategy_10_28_2010%20-%20AY.ashx, accessed March 8, 2011.

San Francisco's Compliance Checklist for Private Development Projects

The City determines whether a project is consistent with San Francisco's *Strategies to Address Greenhouse Gas Emissions* by analyzing GHG reduction policies in the San Francisco Planning Department "Compliance Checklist for Private Development Projects." The City analyzed all the policies in the San Francisco Planning Department "Compliance Checklist for Private Development Projects" for the AC34 and the Cruise Terminal projects. The checklist was used to determine the greenhouse gas reduction policies that were applicable or not applicable and to identify the policies with which the projects did not comply. The complete checklist is included in the administrative file for the proposed project and is available for public review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco as part of Case File. 2010.0493E. The checklist includes discussion of why a policy or regulation was determined not applicable and, among those that were applicable, why the projects did or did not comply.

Draft EIR Analysis

In the Draft EIR, the discussion of the "Compliance Checklist for Private Development Projects" focuses only on the GHG emissions reduction measures that were determined to be applicable to the projects. These applicable measures are contained in Table 5.9-2, Greenhouse Gas Regulations Applicable to the 34th America's Cup, starting on page 5.9-18; and Table 5.9-3, Greenhouse Gas Regulations Applicable to the James R. Herman Cruise Terminal and Northeast Wharf Plaza, starting on page 5.9-31. Table 5.9 -2 identified 21 GHG emissions reduction regulations that are applicable to the 34th America's Cup in the areas of transportation, energy, waste, water and wastewater treatment, and environment and conservation. Table 5.9-3 identified 14 GHG emissions reduction regulations that are applicable to the James R. Herman Cruise Terminal and Northeast Wharf Plaza in the areas of transportation, energy, waste, water and wastewater treatment, and environment and conservation.

As determined in the GHG compliance checklists, the projects would be consistent with San Francisco's *Strategies to Address Greenhouse Gas Emissions* and the projects' GHG impact would be less than significant. The commenters have not provided any substantial evidence that the projects would emit GHGs that could result in the City exceeding AB 32 targets for reducing GHG emissions to 1990 levels.

GG-2b, Decommissioning of Shoreside Power —Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

O-WW-61

- The Draft EIR does not identify removing the shoreside cruise ship power source for 2 years as a source of increased GHG emissions. [O-WW-61]

Response GG-2b

The commenter expresses concern that GHG emissions from decommissioning shoreside power were not addressed in the EIR. As described in the EIR, Chapter 5.9, Section 5.9.3.3, pages 5.9-16, the projects would result in an increase in short-term GHG emissions from a variety of sources, including visitor attendance and construction of event facilities, as well as event operations resulting in increased energy use, water use and wastewater treatment, and solid waste disposal.

In response to this comment, the text on EIR page 5.9-16, third paragraph, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> The proposed project would increase the activity in various locations. The 34th America's Cup would increase activity over the two-year course of the event by generating up to 334,000 visitors per day during an average peak race day; by constructing temporary facilities at Marina Green, Aquatic Park, Crissy Field, Fort Mason, Alcatraz, Cavallo Point, Seawall Lot 330, Pier 26, Pier 28, Piers 19 ½ and 19, Pier 23, Pier 80, and various open water areas; and by constructing permanent facilities at Piers 30-32 and Phase 1 of the Cruise Terminal at Piers 27-29. The 34th America's Cup would contribute to annual short-term increases in GHGs as a result of increased vehicle and boat trips (mobile sources), as well as event operations resulting in increased energy use, water use and wastewater treatment, and solid waste disposal. Additionally, the proposed projects would result in a temporary increase in GHG emissions from the decommissioning of shoreside power at Pier 27 for the 2 years during the period that the cruise terminal shell building would be constructed and when AC Village would be located at Pier 27. Construction of temporary and permanent facilities for AC34 would also result in an increase in GHG emissions. These emissions could be partially offset by provision of temporary shoreside power at Pier 27 for large private yachts during the America's Cup event in 2013, or by provision of shoreside power at Pier 70. Please see Section 5.8, Air Quality, Mitigation Measure AQ-4b, for a discussion of these measures.

This revision does not change the analysis or conclusions presented in the EIR.

The removal of shoreside power for 2 years would result in a temporary increase in GHG emissions; however, these additional GHG emissions would not result in the project not complying with San Francisco's *Strategies to Address Greenhouse Gas Emissions* because, as discussed in Response GG-2a, above, there are 21 policies that the AC34 project would comply with and 14 policies that the Cruise Terminal project would comply with to reduce GHG emissions. Additionally, the James R. Herman Cruise Terminal and Northeast Wharf Plaza, upon completion, would allow for continued provision of shoreside power to cruise ships and use of San Francisco's electric grid while ships are in port, thereby allowing for continued limitation of cruise ship diesel air pollutant emissions and reduction of GHG emissions pursuant to existing regulation for the perceived life of the facility. For further discussion of the projects' overall compliance with the San Francisco's *Strategies to Address Greenhouse Gas Emissions*, please see Response GG-2a, above.

GG-2c, Private Spectator Vessel-Generated GHG Emissions —Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-WW-61 O-ACEC-247

- The lack of regulatory authority over mitigations for GHG emissions from mobile boat sources is not relevant to the determination of a project's significance. [O-WW-61]
- The Draft EIR does not adequately address GHG emissions from mobile boat sources from private spectator vessels. [O-WW-61]
- By not addressing the emissions of mobile boat sources and private spectator vessels, the Draft EIR did not evaluate the carbon footprint of AC34. [O-ACEC-247]

Response GG-2c

The commenters state that the EIR does not address mobile boat emissions or the City's lack of authority over them. As described in the EIR, Chapter 5.9, Section 5.9.3.3, sources of GHG emissions that would not be reduced through compliance with San Francisco's *Strategies to Address Greenhouse Gas Emissions* include mobile boat sources from private spectator vessels. Emissions from vehicles and marine vessels are regulated at the federal and state levels by the United States Environmental Protection Agency (U.S. EPA) and California Air Resources Board (CARB), respectively.

Regarding the comment that the lack of regulatory authority over mitigation is irrelevant to the determination of whether a project's impacts are significant: the project's GHG emission significance determination for spectator boats was not based on whether there are available mitigation measures, but rather whether the overall project would comply with San Francisco's *Strategies to Address Greenhouse Gas Emissions.* Please see Section 12.13, Air Quality, for further discussion of issues related to emissions from mobile boat sources, as well as additional mitigation measures that would reduced GHG emissions. Additionally, for further discussion of the projects' overall compliance with the San Francisco's *Strategies to Address Greenhouse Gas Emissions*, please see Response GG-2a, above.

GG-2d, AC34 Spectator-Generated GHG Emissions —Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

O-WW-61

- The Draft EIR does not mitigate the transportation GHG emissions from up to 344,000 people a day to and from San Francisco for AC34 events. [O-WW-61]

Response GG-2d

The commenter states that the EIR does not provide mitigation for GHG emissions from transportation from up to 334,000 spectators per day from the AC34 events. In Section 5.9.3.3, the Draft EIR indicates that the AC34 project would result in GHG emissions by generating up to 334,000 spectators per day on the five average peak race days in 2013, and attendance is anticipated to be lower on non-peak days, weekdays, and non-event days.

Table 5.9-2 of the EIR identifies a number of regulations that would reduce AC34's transportation-related GHG emissions. These applicable measures for the AC34 event include San Francisco Planning Code Section 163, Transportation Management Programs, or Section 8.1 of the 34th America's Cup Host and Venue Agreement, which calls for the City to coordinate the development of a "People Plan"; and Planning Code Section 155.4, Bicycle Parking in New and Renovated Commercial Buildings. Additionally, the Draft People Plan favors bicycling and transit over private automobile use while emphasizing the need for effective communication and information tools that allow large numbers of users to make individual decisions that support the success of the system as a whole. The sustainable principles of the Draft People Plan emphasize lower-impact forms of transport such as walking, bicycling, and transit. Automobile use in the immediate vicinity of the key spectator areas would be controlled, not only to encourage the use of alternate modes of transportation but also to limit the negative environmental effects of automobile congestion in close proximity to sensitive areas along the Bay waterfront. The Draft People Plan has been designed to reduce private automobile use and vehicle miles traveled, which would reduce vehicle-generated GHG emissions. Therefore, the project's impacts on GHG emissions, including from the transportation sector, were determined to be less than significant. Additionally, for further discussion of the project's overall compliance with San Francisco's *Strategies to Address Greenhouse Gas Emissions*, please see Response GG-2a, above.

GG-2e, GHG Emissions Generated by Construction of GGNRA Temporary Facilities —Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

O-WW-61

- The Draft EIR does not adequately address GHG emissions from the construction of temporary facilities at the Golden Gate National Recreation Area (GGNRA). [O-WW-61]

Response GG-2e

The commenter states that the EIR does not adequately address GHG emissions from the construction of temporary facilities at the GGNRA. Draft EIR Section 5.9.3.3 indicates that the AC34 project would result in GHG emissions from construction of temporary and permanent facilities for AC34 events. Temporary facilities at the GGNRA, which would be outside of the City and County of San Francisco jurisdiction, are considered to result in less-than-significant GHG emissions impacts because the facilities would require a minimal amount of construction and because these facilities and locations would be subject to the Draft People Plan, Draft Sustainability Plan, Draft Zero Waste Plan (also referred to as the Waste Management Plan), and forthcoming Parks Event Operations Plan, which would include specific requirements for water conservation, energy conservation, recycling and composting, and increased transit use, all of which would reduce GHG emissions. Additionally, for further discussion of the project's overall compliance with the San Francisco's *Strategies to Address Greenhouse Gas Emissions*, please see Response GG-2a, above.

12.14.4 People Plan and Sustainability Plan [GG-3]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

O-ACEC-247

- The finding of the greenhouse gas analysis in the Draft EIR depends on the development and implementation of the Sustainability Plan, a Waste Management Plan, and the People Plan, which have not yet been prepared. [O-ACEC-247]

Response GG-3

The commenter states the EIR depends on the development of implementation plans, which have not yet been developed. The EIR conclusion that the AC34 project would result in a less-than-significant impact related to greenhouse gas emissions was based upon the project's compliance with San Francisco's *Strategies to Address Greenhouse Gas Emissions*. Please see Response GG-2a, above, for further discussion of the project's compliance with San Francisco's *Strategies to Address Greenhouse Gas Emissions.*

As stated in the Draft EIR, the project would promote General Plan policies for reducing greenhouse gases by implementing a People Plan that favors bicycling and transit over the private automobile; constructing green building and grounds that comply with sustainability standards of Chapter 7 of the San Francisco Environment Code and Chapter 13 of the Port of San Francisco Building Code, reducing energy and water use; and implementing a Zero Waste Plan that emphasizes composting and recycling. These implementation plans would further goals for reducing GHG emissions associated with AC34; however, these implementation plans are not used as the criteria for determining consistency with San Francisco's *Strategies to Address Greenhouse Gas Emissions* or for the determination that the project would result in a less-than-significant impact related to GHG emissions. Additionally, see Response IO-4 in Section 12.6 for further discussion of the relationship between the EIR and the AC34 implementation plans.

12.15 Wind and Shadow

12.15.1 Overview of Comments on Wind and Shadow

The comments and corresponding responses in this section cover topics in Chapter 5, Section 5.10, of the EIR. These include topics related to:

- WS-1, Need for Wind Tunnel Test / Level of Detail in Project Description and in Wind Test at Piers 27-29
- WS-2, Adequacy of Significance Criteria
- WS-3, Adequacy of Analysis of Project Wind Impacts
- WS-4, Suitability of Piers 27-29 for Proposed Uses
- WS-5, Effectiveness of Wind Mitigation Measures
- WS-6, Use of Future Design Features in Mitigation
- WS-7, Wind Impacts of Long-Term Development

12.15.2 Need for Wind Tunnel Test / Level of Detail in Project Description and in Wind Test at Piers 27-29 [WS-1]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-248
O-ACEC-249
O-ACEC-250
O-ACEC-251
O-ACEC-253

- The Draft EIR's analysis and conclusions regarding the potentially significant wind impacts at Piers 27-29 that would result from removing Pier 27 and truncating the Pier 29 shed, and from constructing the proposed cruise terminal, are not supported by the information contained in the Draft EIR. [O-ACEC-248]

- The Draft EIR's analysis is informationally deficient in not conducting a wind tunnel test for the proposed project at Piers 27-29. [O-ACEC-249]

- The Draft EIR's analysis of wind impacts is deficient because it does not contain adequate detailed information on the project at Piers 27-29. [O-ACEC-250]

- The EIR must accurately identify each point on the project site (as well as on The Embarcadero and surrounding Pier 31) where the project would cause wind speeds to reach or exceed the hazard level of 26 miles per hour (mph) for a single hour of the year. [O-ACEC-251]

- The EIR must identify each point on the proposed new open areas on Piers 27-29 where the project would alter wind speeds. [O-ACEC-253]

Response WS-1

Background: Environmental Review of Project Wind Effects

The City's environmental review of the wind effects of a project may include a screening, technical review, and/or wind tunnel testing. In the City's review process, projects with building heights that are well under 100 feet are typically not wind tunnel-tested, because the wind effects[1] of such relatively short buildings are localized and it is unlikely that such buildings would cause a wind hazard. High-rise buildings, on the other hand, undergo wind tunnel testing, because it is not uncommon that the building could create a wind hazard. Some projects less than 100 feet tall may be further evaluated in order to determine if wind testing is needed to resolve the potential presence or absence of a significant environmental impact – a wind hazard. If, by using available evidence from prior wind testing at or near the site, a reviewer cannot reasonably conclude that the building would not cause a new wind hazard, project wind tunnel testing would be required. However, for the project changes at Piers 27-29, prior wind test data clearly show that new wind hazards could be created and further show that a new wind tunnel test is not needed to demonstrate that condition.

Project environmental review in San Francisco has two primary objectives that relate to project compliance with San Francisco Planning Code Section 148 or related Planning Code sections: (1) to identify locations at which the project would cause wind hazards, and (2) to identify locations in public sidewalks and open spaces where the project would cause wind speeds to exceed the Planning Code's comfort criteria. Project wind tunnel testing may also include efforts to develop measures to reduce wind speeds to meet the wind hazard or comfort criteria of Planning Code Section 148. Causing a wind hazard in public areas is a basis for denial of the project in areas covered by that code section, while causing winds that exceed the comfort criteria is handled as a code variance matter.

In a project wind tunnel test, not every point on the ground at the project site is tested; a sample of the possible locations is selected to identify anticipated worst-case wind conditions, as well as to provide an adequate factual basis for accurately characterizing wind conditions on adjoining sidewalks and nearby open spaces. Test locations may be closely or widely spread depending upon the known wind conditions in the area and the suspected wind effects of the project. For the purpose of characterizing wind flows around buildings, measuring wind speeds at a large number of closely spaced locations is considered unnecessary and uninformative. Overall, the wind investigator considers that these data must be sufficient to satisfy the primary objectives of testing, as described above.

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[1] Adverse wind effects usually result from a building that is tall enough to intercept the higher-speed wind that would otherwise flow overhead and to direct it downward to pedestrian level. Buildings less than 100 feet in height have little potential to reach and intercept higher-speed winds.

Need for Project Wind Tunnel Testing

Comment O-ACEC-249 states that the Draft EIR's analysis is informationally deficient in not conducting a wind tunnel test for the proposed project at Piers 27-29. With the proposed AC34 events and cruise terminal at Piers 27-29, all of the proposed structures, at approximately 40 feet in height or less, would be too short to result in a significant adverse environmental impact from wind solely by building them on an open site under those existing wind conditions. Wind tests were performed in 2004 as part of a mixed-use recreational project at Piers 27-31. These tests, described on Draft EIR pages 5.10-5 through 5.10-12, showed that even with short structures present, adverse wind impacts would occur on Piers 27-29 primarily because the Pier 27 shed and part of the Pier 29 shed, which together shelter the central portion of the piers from strong winds, would be removed by that project.

Similarly, in the case of the proposed project at Piers 27-29, the important actions from the perspective of wind effects are, as stated on page 5.10-8 of the EIR, (1) the proposed removal of the eastern portion of the Pier 29 shed, (2) removal of the entire existing Pier 27 terminal and Pier 27 Annex office building, (3) construction of the proposed cruise terminal building (discussed below), and (4) construction of the 2½-acre Northeast Wharf Plaza. Removal of part of the existing Pier 29 shed and all of the Pier 27 shed would remove those two existing barriers to the wind and would expose this newly opened area of the pier to existing high-speed winds that now are forced to flow above the roofs of the existing enclosing sheds. As discussed on page 5.10-8 of the EIR, because the existing winds in this vicinity have speeds that approach or may even exceed the wind hazard criterion of Planning Code Section 148, removing the localized wind shelter would expose the newly opened areas of the pier to those potential wind hazards. The important question is to what extent the proposed truncated Pier 29 shed, new cruise terminal building, and other proposed structures would slow and/or redirect those winds that reach the site, and thus possibly mitigate the significant wind impact that would otherwise result from removing all or parts of the Pier 27 and 29 sheds. As a conservative approach, it was assumed in the EIR that the remaining structures at Piers 27-29 would not provide enough shelter to eliminate the hazards or to prevent new hazards from occurring.

The EIR analysis in Section 5.10.1 brackets the potential wind impacts of the project because prior wind testing of the existing Pier 27-29 sheds and the removal of the Pier 27 shed provides sufficient detailed information to determine the "worst case" of the impact described in the Draft EIR. The evaluation of the project in light of the prior test results provides a clear indication of the potential significant impacts that would occur and the general area that would be affected as a result of the project, as required by CEQA.

Because the 2004 wind test included the Northeast Wharf Plaza, that test showed the wind effects on that plaza and indicated that locations within the plaza would be expected to exceed the pedestrian comfort criterion but not exceed the wind hazard criterion.

As a result, the EIR analysis provides the same information about the potential wind effects of the project as a project wind tunnel test would provide. This analysis also satisfies both primary objectives of wind tunnel testing for environmental review: (1) to identify locations where wind hazards would occur, and (2) to identify locations on public sidewalks and open spaces where the project would cause wind speeds to exceed the Planning Code's comfort criteria.

Level of Detail in the Project Description and in Wind Testing

Comment O-ACEC-250 claims the EIR analysis does not contain adequate detailed information on the project at Piers 27-29. Contrary to this conclusion, however, there is adequate information available to correctly characterize and assess the wind impacts of the proposed project and to craft effective mitigation measures. The existing conditions at Piers 27-29 are described in detail in Chapter 3, pages 3-21 to 3-23 of the EIR, while detailed information on the proposed AC34 project at Piers 27-29 is included on pages 3-77 to 3-83 of the EIR, and detailed information on the proposed Cruise Terminal project is included on pages 3-102 to 3-122 of the EIR.

For the purposes of wind testing for environmental review, and so for this analysis, the level of detail that is most appropriate considers primarily the basic shapes and orientations of the larger structures on the site and in the vicinity. For this project, this includes the existing pier head structures, the truncated Pier 29 shed, and the proposed new cruise terminal building. Fine details in design or construction (e.g., small structures on the project site, exterior materials, etc.) are usually not considered, as they are known from experience to have smaller effects on wind conditions and usually act to reduce wind speeds. Accordingly, the basic project configuration was compared to the existing conditions, including the existing Pier 27-29 structures but excluding the smaller existing buildings. This approach to project detail and modeling is conservative, in that it results in higher project wind speeds than if the models include many architectural details, all of which usually tend to reduce the speed of the wind. Therefore, the level of detail of the proposed project, as described in EIR Section 5.10.1, is appropriate for the wind analysis. Adding more project detail would not improve the wind analysis, nor would it reveal impacts not already identified and discussed in the EIR.

Comment O-ACEC-250 requests more detailed information for the specific elements proposed for the site, including the truncated Pier 29 shed, the Northeast Wharf Plaza, open space at the end of Piers 27-29, and the cruise terminal building. As discussed above, the available level of detail used in the EIR for the project elements was appropriate for developing a "worst-case" wind analysis. The commenter indicates there is no information about how much of the Pier 29 shed would be truncated; however, the plans and maps presented in Chapter 3 of the Draft EIR provide sufficient information to define the length of the truncated shed under the project. Please also see Chapter 11 for a description of refinements to the project description. The commenter also indicates there is no specific design for the proposed Northeast Wharf Plaza or open space at the end of Piers 27-29; however, such detail was not required, because in order to provide a worst-case situation for wind impacts, these project elements were assumed to be flat, open areas, with no topographic features or structures. The commenter also indicates that the new cruise terminal would have a much smaller footprint than the existing Pier 27 shed. The analysis considers this condition and used a detailed digital design model of the building provided by the Port's design team to consider its possible effects.

Comment O-ACEC-251 states that the EIR must accurately identify each point on the project site (as well as on The Embarcadero and surrounding Pier 31) where the project would cause wind speeds to reach or exceed the hazard level. Similarly, Comment O-ACEC-253 states that the EIR must identify each point on the proposed new open areas on Piers 27-29 where the project would alter wind speeds. With respect to the number of study points on the project site that require testing, a sample of the possible locations is selected to identify anticipated worst-case wind conditions, as well as to provide an adequate factual basis for accurately characterizing wind conditions on adjoining sidewalks and nearby open spaces. (See "Background: Environmental Review of Project Wind Effects," above, for additional detail.) The level of detail that is presented in the EIR is sufficient to inform the public and decision-makers about the specific adverse wind effects that could result from the project and inform them of the mitigation measures that would be adequate to prevent safety risks that otherwise could result.

12.15.3 Adequacy of Significance Criteria [WS-2]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-251	O-ACEC-252

- The EIR fails to adequately analyze and consider the project's significant wind impacts because the significance criteria are inadequate. [O-ACEC-251]
- The accepted standards relating to wind speeds and pedestrian comfort levels should be the wind comfort description by Lawson and Penwarden and the wind criteria of Planning Code Section 148. [O-ACEC-252]

Response WS-2

Significance Criteria

Comment O-ACEC-251 expresses concern that the EIR fails to adequately analyze and consider the project's significant wind impacts because the significance criteria are inadequate. As stated on EIR page 5.10-5:

> The City has not formally adopted significance standards for impacts related to wind, but generally considers that implementation of the project could have a potentially significant impact related to wind if the project were to alter wind in a manner that substantially affects public areas.
>
> An indication of such an alteration would be if the wind speed were to be increased so that the hazard criterion established by Planning Code Section 148 would be exceeded, or if the size of the area that would be affected by the wind hazard were to be substantially increased. An alteration of the wind that would cause new exceedances of Planning Code Section 148 comfort criteria, but not the wind hazard criterion, in public areas would not be considered to have a significant impact.

The CEQA significance criterion is related to the San Francisco Planning Code, which outlines wind criteria for the Downtown Commercial District and the Rincon Hill, Van Ness Avenue, and South of Market areas in Planning Code Sections 148, 249.1(a)(3), 243(c)(9), and 263.11(c), respectively. These criteria are derived from Section 148. While the project site lies outside of these areas, the criteria of Planning Code Section 148 are nonetheless used by the Planning Department as CEQA significance criteria everywhere in San Francisco in evaluating wind impacts of large projects.

Comment O-ACEC-252 states that the accepted standards relating to wind speeds and pedestrian comfort levels should be the wind comfort description by Lawson and Penwarden, from Draft EIR page 5.10.3, and the wind criteria of Planning Code Section 148. As clearly stated in the Draft EIR and as further clarified above, the wind criteria developed for use in Section 148 form the bases for the significance criterion used in the EIR. The Lawson and Penwarden research paper was one of several basic references used by the City and County of San Francisco in developing the wind standards that were codified into Planning Code Section 148 and the related code sections.

12.15.4 Adequacy of Analysis of Project Wind Impacts [WS-3]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-253
O-ACEC-254
O-ACEC-255

- The Draft EIR does not adequately analyze and present project wind impacts:
  - Significantly higher wind speeds on the proposed new open area of Piers 27-29;
  - Increased wind speeds in public areas; and
  - New wind hazard locations in the proposed new 3-acre open space at the end of Piers 27-29 and in the proposed cruise terminal ground transportation area. [O-ACEC-253, O-ACEC-254, O-ACEC-255]

Response WS-3

Comments O-ACEC-253, O-ACEC-254, and O-ACEC-255 express concern that the Draft EIR does not adequately analyze and present wind impacts, noting that there would be significantly higher wind speeds on the proposed new open area of Piers 27-29, increased wind speeds in public areas, and new wind hazard locations in the proposed new 3-acre open space at the end of Piers 27-29 and in the proposed cruise terminal ground transportation area. Comment O-ACEC-253 quotes from page 5.10-10 of the EIR, which states that "wind speeds in the open valley area would be higher than under existing conditions; the average of the wind speeds exceeded 10 percent of the time for all test points are expected to increase to 15 mph or more." Comment O-ACEC-253 then states that the EIR "neglects to tell the reader that this translates to increases in the average of the wind speeds at the four identified points in the open valley area to at least 29 mph, 30 mph, 34 mph (hazard wind), and 22 mph, clearly exceeding the Planning Code's ground-level wind current comfort levels of 11-mph wind speed in areas of substantial pedestrian use and creating 3 new points where hazard wind speeds are exceeded."

Comment O-ACEC-253 does not disclose the method the commenter used to obtain or calculate these "average" wind speeds, but the speeds for the "average of the wind speeds at the four identified points in the open valley area" as stated by the commenter are higher than reported in the EIR. The project wind speeds considered at that point in the EIR are the speeds exceeded only 10 percent of the time, not "average" speeds. Due to the nature of wind, in the wind speed distribution – a statistical measure of the cumulative frequency of occurrence for any given wind speed – the average wind speed must always be less than the wind speed that is exceeded only 10 percent of the time.[2] Furthermore, even those speeds exceeded 10 percent of the time (which are much higher than the average speeds) are highly unlikely to reach those stated speeds in the open valley area of Piers 27-29. Considering the EIR analysis quoted by the commenter from page 5.10-10 of the EIR, comparison of the "…15 mph or more" wind speeds with the criteria in Table 5.10-1 of the EIR shows that the comfort criteria are currently exceeded, as confirmed by the discussion in the following paragraph of the EIR. Wind hazards expected with the project are discussed on page 5.10-11 of the EIR under "Project Wind Hazard Conditions."

Comment O-ACEC-254 states that there would be increased wind speeds exceeding wind comfort levels along The Embarcadero sidewalks (new wind speeds of 15 to 19 mph) and in the proposed Northeast Wharf Plaza area (new wind speeds of 17 to 19 mph), and then asserts that the EIR improperly concludes based on the 2004 wind analysis that such increases are insignificant because these places are already windy. As described more fully in Response WS-2, above, the significance criterion used in the EIR is "[a]n alteration of the wind that would cause new exceedances of Planning Code Section 148 comfort criteria, but not the wind hazard criterion, in public areas would not be considered to have a significant impact." Therefore, it was concluded that a wind speed change that causes only an exceedance of Planning Code Section 148 comfort criteria is not considered a significant environmental impact.

For winds in the proposed Northeast Wharf Plaza and along The Embarcadero sidewalks, the project changes would not alter the status of these points with respect to the comfort criteria of Section 148, which are already exceeded. As discussed in Response WS-1, the primary objectives in wind tunnel testing are (1) to identify locations at which the project would cause wind hazards, and (2) to identify locations in public sidewalks and open spaces where the project would cause wind speeds to exceed either of the Planning Code's comfort criteria. The environmental impact of these results is then determined by comparison with the EIR significance criteria. The 2004 wind testing showed that winds at the Northeast Wharf Plaza and along The Embarcadero sidewalks currently exceed the comfort criteria, and that opening up the plaza to the Bay would increase those wind speeds but would not result in wind hazards. The EIR analysis for the project concludes that winds at the proposed Northeast Wharf Plaza and along The Embarcadero sidewalks would continue to exceed the comfort criteria but have not been shown, and are not anticipated, to exceed the hazard criterion.

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[2] The Planning Code considers both the wind speed and its frequency of occurrence to determine compliance. These determinations rely on meteorological data that associate a wind speed with each individual hour of the measurement period. These data form a wind speed distribution that describes a relative frequency of occurrence for each specific wind speed, from zero to the highest speed.

In the resulting wind speed distribution, neglecting calm conditions, 100 percent of the winds have speeds greater than 0 mph; if calm conditions are included, the portion is roughly 98 percent. At higher comparison speeds, the percentage of the winds that exceed that speed will be smaller. At some specific, higher wind speed, 50 percent of the winds that occur will be higher and 50 percent will be less than the comparison speed. This median speed might be what many would consider an "average" wind speed. As the comparison speed increases still further, the percentage of the winds that exceed that speed will decrease also. At some, still higher speed, only 10 percent of the winds that occur will be greater while 90 percent of the winds will be less than that speed. This shows why the median or "average" speed must be less than the speed exceeded 10 percent of the time (or not exceeded 90 percent of the time).

Comment O-ACEC-255 concludes that an accurate assessment of the wind impacts is not provided in the EIR, and that the EIR must identify each point on Piers 27-29 and on surrounding public areas on Pier 31 and along The Embarcadero where the project would alter wind speeds. This additional information is not necessary for the analysis. The commenter states that the information is required in order to provide a competent analysis of the project's wind impacts at Piers 27-29. In addition to the material in this and other responses, however, Responses WS-1 and WS-2, above, discuss the approach to wind tunnel testing for environmental review, as well as fully discuss issues related to the level of detail required for the project description and the level of detail needed in wind testing and analysis. The Draft EIR provides adequate information and suggests appropriate mitigation measures to address the anticipated impacts.

12.15.5 Suitability of Piers 27-29 for Proposed Uses [WS-4]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-252
O-ACEC-256

- The Draft EIR fails to adequately analyze and consider the suitability of Piers 27-29 for all proposed uses with respect to wind speeds. Without adequate project information and wind analysis, the Draft EIR cannot adequately determine the suitability of Piers 27-29 for the proposed new uses. [O-ACEC-252]
- There is no basis to conclude that the project at Piers 27-29 is suitable for proposed uses. The analysis of "Site Suitability for Proposed Uses" (Draft EIR, page 5.10-12) does not support a finding that Piers 27-29 are suitable for the AC34 events, and instead provides clear evidence that Piers 27-29 are not suitable for the proposed cruise terminal and Northeast Wharf Plaza. [O-ACEC-256]

Response WS-4

As discussed and considered in Response WS-1, above, the level of project detail available is adequate to characterize the wind conditions on the Pier 27-29 site under project conditions. Together with the information about the existing wind conditions, the characterization of project wind effects supports the proper comparisons of the changes and the full assessment of project wind impacts, including the locations and kinds of wind effects that could occur on the site.

Factors that affect the suitability of the site for the proposed uses are discussed on page 5.10-12 of the EIR; the physical factors that affect how spectators or other site users may personally judge suitability are discussed throughout the "AC34 Events and Cruise Terminal Impacts and Mitigation Measures" section, on pages 5.10-10 to 5.10-16 of the EIR. The following provides additional information on suitability evaluation and determination.

Suitability Evaluation and Determination

Comments O-ACEC-252 and O-ACEC-256 state that the Draft EIR fails to evaluate the suitability of Piers 27-29 for the proposed uses. The San Francisco Port Commission and Board of Supervisors will evaluate the suitability of the site for the proposed public uses.

As the primary Planning Code section dealing with wind, Section 148 makes only one precise determination about suitability of a land use with respect to wind, namely that a project that would cause a wind hazard where none now exists, or would increase the extent of existing wind hazards, is not acceptable. Section 148 does consider the effects of other wind conditions but, for areas of substantial pedestrian use and for seating areas, it does not prohibit or regulate use in wind conditions where wind speeds are less than those that cause wind hazards. The acceptability of these other conditions is evaluated on a case-by-case basis by the decision-makers. These judgments are reserved for the decision makers in the approval processes.

Use Suitability Comparisons and Discussion

The project or an alternative that includes the Northeast Wharf Plaza – an open space fronting on the Bay with no wall or other tall barrier to protect it – would likely have substantially increased wind speeds over the surface of the plaza. The Northeast Wharf Plaza was proposed as a new public open space a decade ago and made a part of the adopted Bay Conservation and Development Commission (BCDC) Special Area Plan (SAP). The plaza's open exposure to the Bay was considered by BCDC, as well as others involved in that planning process, to be a benefit on the utility of the plaza. However, opening the plaza up to the bayfront inevitably would result in substantially increased wind speeds on the plaza, as well as on the eastern sidewalks of The Embarcadero, as disclosed in the EIR.

Mitigation, Risk, and Site Suitability for Public Use

At all times of the year, the winds on Piers 27-29 will reflect the general winds in the northeast waterfront area; when winds are calm or mild in the northeast waterfront, they will also be the calm or mild on Piers 27-29. During the familiar windy spring and summer afternoons, the winds will be strong in the northeast waterfront area and slightly stronger on Piers 27-29. However, for almost all of the 8,760 hours of each year, winds at all locations on Piers 27-29 will remain below the hazard level wind speed of Planning Code Section 148. Winds on Piers 27-29 may become quite strong but still remain non-hazardous.

The significance of the adverse effect lies in the potential for wind speeds to reach and exceed the speed that the Planning Code defines as hazardous for more than 1 hour per year, on average. For almost all of the 8,760 hours in each year, winds on the piers would not be hazardous. However for a limited number of hours, on the order of up to 50 to 100 hours per year, wind conditions could reach hazardous levels in those areas of the piers, generally within the 3-acre area east of the proposed cruise terminal building and at the east end of the proposed cruise terminal ground transportation area between the proposed cruise terminal building and the truncated Pier 29 shed. Given that high wind conditions are usually associated with strong storm systems, it is likely that most of those hours of hazardous winds at Piers 27-29 would coincide with strong storms passing through the Bay Area. Members of the public who come to the site during strong windstorms, in spite of storm forecasts and warnings, should be made aware that very strong winds can pose a physical risk.

However, in addition to winter storm winds, it is possible that some of those high wind events would occur at other times that coincide with public events or with times when the piers may be open to public access. Even such an infrequent high wind event would be predictable, just as it commonly is now, with the National Weather Service predicting high winds and issuing high wind warnings for specific Bay Area bridges and hill areas.

Mitigation Measures M-WI-1 and M-WI-2 in the EIR specify the use of warning signs on the east aprons of Piers 27-29 during hazardous wind events. Providing and maintaining wind warning signs for specific areas would provide important information about wind conditions that may pose a risk to personal safety. Wind warning signs would be similar to the signs used at Ocean Beach that warn bathers of the risks of undertow, warn that there are no lifeguards present, and caution against being in the water when bacterial contamination is high. Warning signs are also used throughout the Bay Area to inform people of safety risks of flash flooding near creeks, deer crossing the roadway, or rocks falling on the roadway. The need for or benefit of such signs does not indicate that those areas are unsuitable for public use. Instead, it demonstrates that risks are present in varying degrees at various times, but that a suitably high degree of control and prevention can be achieved by a relatively simple device. The City's wind hazard criterion was established with the protection of the broader public in mind, and therefore seeks to protect people who may be walking in a public space or along a public sidewalk and unsuspectingly may walk around a corner from a wind-sheltered location into a very windy area. As discussed in the EIR, the safety risk and the potential hazard could occur only when the infrequent event, the extremely strong wind, occurs at the piers. Such winds would not just occur without a larger weather-related cause; rather they would result from, and coincide with, the stronger windstorms that occur in the Bay Area.

Since the open area would not be associated with a residence or retail business and there would be no need to have ongoing public access to the site at all times, it could be closed to public access during those infrequent periods of extreme wind. However, the need for infrequent protective closing (or warning) of the site would not mean that the site is unfit for public use.

Mitigation, Risk, and Site Suitability for Cruise Ship Terminal Use

To ensure continued operations during strong windstorms, it might be necessary for the cruise terminal to provide temporary protection for passengers embarking or disembarking from ships. While such protection could be designed into the hardscaping and landscaping, the protection also could consist of an enclosed walkway or simple, movable screens that line and protect the pedestrian walkway on the pier; neither would have to be a permanent feature on the pier to be fully effective. Mitigation Measure M-WI-2 in the EIR is flexible in accommodating a range of potential features.

Text Correction

Comment O-ACEC-256 indicates that the last sentence in the sixth paragraph on page 5.10-13 of the Draft EIR is incomplete. The comment is noted. In response to this comment, the EIR text on page 5.10-13, paragraph 5, last line, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> If a hazardous wind event coincides with public access to this area, safety hazards could result.

This revision does not change the analysis or conclusions presented in the EIR.

12.15.6 Effectiveness of Wind Mitigation Measures [WS-5]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-248 O-ACEC-257

- The Draft EIR's conclusion that all impacts on public areas at Piers 27-29 would be less than significant relies on ineffective mitigation measures. [O-ACEC-248]
- Proposed mitigation measures are ineffective. The Draft EIR fails to consider mitigation requiring the proposed project to be designed to avoid significant wind impacts. [O-ACEC-257]
- The underlying defect in the Draft EIR's consideration of mitigation measures is the fact that, although on the one hand the Draft EIR purports to be an EIR covering a "project" composed of the cruise terminal, the Northeast Wharf Plaza, the AC34 events, and the long-term development rights associated with the America's Cup, jointly, in a single EIR, it then attempts to split them out, individually, for consideration of their impacts and mitigation measures. [O-ACEC-257]
- The EIR must consider the impacts of the temporary AC34 event itself (i.e., requiring physical changes to Piers 27-29 to accommodate the AC Village per the Host Agreement) on the future permanent uses of Piers 27-29 as a cruise terminal and public open space. Because the wind impacts of the proposed project cannot be adequately mitigated for these future uses, mitigating them for the short-term use of Piers 27-29 for AC34 events is inadequate and inappropriate. [O-ACEC-257]

Response WS-5

Effectiveness of Mitigation Measures

The proposed mitigation measures would reduce the wind hazard impact of the project to a less-than-significant level with warning signs, access limitations, and/or design features that could reduce the speed of the wind in public areas to less than the wind hazard speed specified in Planning Code Section 148. In addition to the mitigation measures presented in the Draft EIR, pages 5.10-14 and 5.10-15, see Response WS-6, below, for further clarification about the level of mitigation that would be required.

Project Impact vs. Impact by Component

Comment O-ACEC-257 includes the following statement:

> The underlying defect in the DEIR's consideration of mitigation measures is the fact that, although on the one hand the DEIR purports to be an EIR covering a "project" composed of the cruise terminal, the Northeast Wharf Plaza, the AC34 events, and the long term development rights associated with the America's Cup, jointly, in a single EIR, it then attempts to split them out, individually, for consideration of their impacts and mitigation measures.

The commenter is incorrect about how the AC34 and Cruise Terminal projects are characterized and analyzed in the EIR. While the AC34 and Cruise Terminal projects have a relationship (e.g., same site), they are independent projects due to phasing over time and would not overlap in operations in any way. Consequently, in the case of wind impacts, it is appropriate for the EIR to analyze and recommend mitigation for the impacts of each project separate from the other. Without an understanding of the wind impacts of each project, it would not be possible to develop mitigations for each project that would be effective. The commenter has not suggested how this analysis could be accomplished otherwise. For more information on how the EIR addresses the AC34 and Cruise Terminal projects in one EIR, please see Response INT-1 in Section 12.3 and Response PD-1 in Section 12.4.

Impacts of the AC34 Event on Future Pier 27-29 Use for Cruise Terminal

Comment O-ACEC-257 includes the following statement:

> The DEIR must consider the impacts of the temporary AC34 event itself on (i.e. requiring physical changes to Piers 27-29 to accommodate the AC34 Village per the Host Agreement) on the future permanent uses of Piers 27-29 as a cruise terminal and public open space. Because the wind impacts of the proposed project cannot be adequately mitigated for these future uses (see COMMENTWI-3B, below), mitigating them for the short term use of Piers 27-29 for AC34 events is inadequate and inappropriate.

The commenter is incorrect in suggesting that the EIR does not provide adequate mitigation for the wind impact of the proposed Cruise Terminal project. The Draft EIR appropriately addresses the wind impacts of the temporary AC34 event (Impact WI-1), including those wind effects related to the removal of the Pier 27 shed, truncating of the Pier 29 shed, construction of the cruise terminal core building and shell, and installation of temporary AC34 event structures, and identifies specific mitigation (Mitigation Measure M-WI-1) to mitigate the wind effects of that temporary event to less-than-significant levels. Separately, in Impact WI-2, the Draft EIR appropriately addresses the wind impacts of the long-term operation of the Cruise Terminal project, including the removal of the Pier 27 shed, truncated Pier 29 shed, new cruise terminal building and other supporting facilities, and Northeast Wharf Plaza; and identifies specific mitigation (Mitigation Measure M-WI-2) to mitigate the wind effects of that long-term project to less-than-significant levels. While Mitigation Measures M-WI-1 and M-WI-2 each employ the installation of warning signs and access limitations, as needed, for their respective projects, Mitigation Measure M-WI-2 further requires implementation of design features for the Cruise Terminal project that would provide wind protection for public access areas, consistent with BCDC and Port design guidelines as well as the *Secretary of the Interior's Standards for Treatment of Historic Properties*.

12.15.7 Use of Future Design Features in Mitigation [WS-6]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-248	O-ACEC-259	O-WW-37

- Elements of the proposed mitigation measures may have a significant impact on historic resources that must be analyzed. [O-ACEC-248]
- Mitigation Measure M-WI-2 relies on future "design features" that are not a part of the project and that could themselves have a significant impacts on historic resources. [O-ACEC-259, O-WW-37]
- There is no basis for the Draft EIR's conclusion that the implementation of future "design features that provide wind protection for public access areas, consistent with BCDC and Port design guidelines, as well as Secretary of the Interior's Standards for the Treatment of Historic Properties" would mitigate the significant wind impacts to less-than-significant levels because these design features do not yet exist. [O-ACEC-259, O-WW-37]

Response WS-6

Comments O-ACEC-259 and O-WW-37 indicate that there is no basis for the Draft EIR's conclusion that the implementation of future design features that provide wind protection for public access areas would mitigate the significant wind impacts to less-than-significant levels because these design features do not yet exist. Under San Francisco Planning Code Section 148, the wind conditions that result in a wind hazard are strictly defined. If the winds do not reach the wind hazard criterion value, no hazard exists under Section 148. Compliance requires only that the wind speed be reduced to less than the hazard criterion value; as a result, an open space still may be the site of regular, strong winds, but would not be considered to have wind hazards.

Efforts to comply with Section 148 typically include minor changes in the project design and changes in structural detail, finish, hardscape, and landscape. Changes in these elements will usually reduce wind speeds at targeted locations by a few miles per hour to as much as 6 miles per hour. There are many landscaping devices that are proven in their effectiveness in slowing and deflecting the wind. Given their proven effectiveness, landscaping the plaza or the open area with solid benches, low or mid-height walls, raised planter beds, planter tubs with trees and shrubs, kiosks and other street furniture, as well as large installed public art work, can be sufficient to reduce wind speeds enough to satisfy the wind hazard criterion of Section 148. These devices and solutions fall within the normal range of landscaping practice, so it would be possible to eliminate the wind hazards working within the other (listed) constraints that would exist for the development of the landscaping (whether permanent or temporary) for the public open spaces on the piers.

Comments O-ACEC-248, O-ACEC-259, and O-WW-37 conclude that elements of the proposed wind hazard mitigation measure may have a significant impact on historic resources that must be analyzed. However, the mitigation measure was developed mindful of potential impacts on historic resources, since the site is within the Embarcadero Historic District. As discussed above, a variety of wind hazard reduction measures are available that involve relatively minor physical changes to the project design. The requirement that the design features comply with the Secretary's Standards would ensure that implementation of the wind hazard reduction measures would have a less-than-significant impact on historic resources.

12.15.8 Wind Impacts of Long-Term Development [WS-7]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-248
O-ACEC-260

- The Draft EIR analysis of the wind impacts that could result from long-term development is defective in purporting to analyze future impacts that may result from unknown locations and then concluding that all possible wind impacts could be reduced to less-than-significant levels by "assuming conformance" with guidelines and policies. [O-ACEC-248]
- There is no basis for the EIR's conclusion that the wind impacts of the long-term development under the Host Agreement would be less than significant. Without a complete and stable project description for each future development project, neither the agency nor the public can reliably assess the nature and extent of the project's impacts. Further, without a reliable assessment of the nature and extent of the project's impacts, it is impossible to judge whether any alternatives or mitigation measures are likely to be effective in either substantially reducing significant impacts or reducing them to less-than-significant levels. [O-ACEC-260]

Response WS-7

Comment O-ACEC-260 quotes from the analysis of Impact LT-WI on page 5.10-16 of the EIR, which indicates that long-term development under the Host Agreement would have a less-than-significant impact on wind conditions assuming conformance with applicable design guidelines and policies. Comment O-ACEC-260 then states that without a complete and stable project description for each future development project, the nature and extent of the project's impacts cannot be reliably assessed, and hence it is impossible to judge whether any alternatives or mitigation measures are likely to be effective in reducing significant impacts. Comment O-ACEC-248 claims the EIR analysis is defective in purporting to analyze future impacts that may result from unknown locations and then concluding that all possible wind impacts could be reduced to less-than-significant levels by "assuming conformance" with guidelines and policies.

The discussion of Impact LT-WI on page 5.10-16 of the EIR describes all of the controls that are in place to prevent significant wind impacts from occurring as a result of the listed future long-term developments. No significant wind impacts are anticipated. In addition, further site-specific and project-specific review of wind impacts will be required when actual development proposals are submitted. During the environmental review, the potential for significant wind impacts will be evaluated by the San Francisco Planning Department as described in Response WS-1. If wind testing is required it would be performed, and compliance with Section 148 requirements would result in design changes that would eliminate any wind hazards that are found.

The criterion for judging the significance of the wind impact in future CEQA review of the long-term development would be the same criterion applied in this EIR, namely that a significant impact would result if a project creates or expands a new wind hazard. Given that most of the structures that would be built would be 40 feet or less in height, as noted in Response WS-1, there would be very little likelihood that any of them could cause a wind hazard and thus result in a significant wind impact. The exception may be at Seawall Lot 330, where structures higher than 40 feet would be allowed. These development areas would be subject to Section 148 wind requirements, which do not allow a new building to be built if it would create new or expand existing wind hazards. As discussed in Impact LT-WI, future long-term development would also need to be designed and constructed in conformance with other applicable design guidelines and policies, which include Section 148 of the San Francisco Planning Code, *BCDC Special Area Plan – Northeastern Waterfront, Port Waterfront Land Use Plan–South Beach/China Basin Waterfront, Bryant Street Mixed Use Opportunity Area*, and the Recreation and Open Space Element of the *San Francisco General Plan.* No other mitigation would be necessary for wind impacts.

Please see also Response IO-5 with respect to the approach to analysis of long-term development that may occur under the AC34 project; and Response PD-1 regarding the completeness of the project description.

12.16 Recreation

12.16.1 Overview of Comments on Recreation

The comments and corresponding responses in this section cover topics in Chapter 5, Section 5.11, of the EIR. These include topics related to:

- RE-1, Recreation Use Displacement / Visitor Experience Effects
- RE-2, Aquatic Park Cove
- RE-3, Hyde Street Pier / Municipal Pier
- RE-4, Boardsailing
- RE-5, Central Bay Open Water Recreation Use
- RE-6, Recreation Setting Comments
- RE-7, Mitigation Measure M-RE-1: Protection of Recreational Resources
- RE-8, Revenue / Socioeconomic Impacts
- RE-9, Cumulative Impacts
- RE-10, Comments Not Associated with the Proposed Project or No Specific Comment

12.16.2 Recreation Use Displacement/Visitor Experience Effects [RE-1]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-08
A-NPS2-10
A-NPS2-23
A-NPS2-48
A-NPS2-49
A-NPS2-54
A-NPS2-145
A-NPS2-148
A-NPS2-150
A-NPS2-153
A-NPS2-157
A-NPS2-162
A-NPS2-163
A-NPS2-167
A-NPS2-169
A-NPS2-173
A-NPS2-188
A-NPS2-189
A-NPS2-192
A-BCDC-09
A-ABAG-01
A-ABAG-03
A-SFPC-Anto-03
A-SFPC-Moore-05
O-CPCFC-02
O-Dolphin2-01
O-GGNPC2-09
I-Walton1-01
I-Whitaker-02
I-Whitaker-03

- The EIR should include an analysis of impacts on recreational users at facility and event areas, as well as where displaced visitors are likely to relocate, as the number of visitors and displaced regular users would be significant. Some waterfront recreational uses cannot be replicated elsewhere. Mitigation measures should be proposed. [A-NPS2-08, A-NPS2-10, A-NPS2-23, A-NPS2-48, A-NPS2-49, A-NPS2-150, A-NPS2-153, A-NPS2-157, A-NPS2-162, A-NPS2-163, A-NPS2-169, O-CPCFC-02, O-GGNPC2-09]

- The EIR should address impacts on visitors traveling, both on water and on land, to and from Pier 31½. Public visitation to Alcatraz should be maintained. [A-NPS2-54]

- The EIR's existing setting and impact discussion should include a clear baseline, carrying capacity, and projected level of AC34 activities for each National Park Service (NPS) park area. This can be accomplished through a visitor flow analysis based on work by technical experts hired by the City and County of San Francisco. [A-NPS2-145, A-NPS2-148, A-NPS2-153, A-NPS2-167, A-NPS2-173, A-NPS2-188, A-NPS2-189, A-NPS2-192]

- Impacts on public access—both in water and on land—would occur; the proposed project would make areas currently open to the public inaccessible to the general public or AC34 visitors would affect everyday users. [A-BCDC-09, A-ABAG-01, A-ABAG-03, A-SFPC-Anto-03]
- There is a complete absence of analysis of impacts on existing recreation, other than wear and tear of facilities, in the EIR. [A-SFPC-Moore-05]
- AC34 activities would occupy most of the San Francisco waterfront, which belongs to the citizens and visitors of this city. In addition, AC34 should not be considered a temporary disruption given the number of weeks of proposed race activities. [O-Dolphin2-01]
- Recreation uses and values of proposed project sites should be considered and maintained. [I-Walton1-01, I-Whitaker-02, I-Whitaker-03]

Response RE-1

CEQA focuses on *physical* environmental impacts. As stated in CEQA Guidelines Section 15002(g), a significant effect on the environment is defined as "a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As described in Section 12.3, Response INT-2, the separate and concurrent National Environmental Policy Act (NEPA) process on the AC34 project will evaluate the potential effects of the AC34 sailing races on the lands and waters administered by the federal government, with a focus on alleviating or lessening impacts on those federal resources or respective federal responsibilities potentially affected by the AC34 events. Consistent with the standard practice of the San Francisco Planning Department, the recreation resources significance criteria used in the EIR impact analysis and listed in Section 5.11.3.1, Significance Criteria (page 5.11-34), focus on whether the project would (1) increase the use of recreational facilities such that substantial physical deterioration would occur or be accelerated, or (2) cause physical degradation of existing recreational resources. As described in Section 5.11.3.2, Approach to Analysis, pages 5.11-35 to 5.11-37, the impact analysis determines the potential for project activities to cause direct physical effects on recreation resources (i.e., physical deterioration of facilities, acceleration of physical deterioration of facilities, or physical degradation of existing resources). Indirect effects on recreational resources, such as vegetation removal, effects on viewsheds and sightseeing opportunities, traffic hazards, noise, and air quality effects, are also evaluated in other sections of the EIR.

Numerous comments express concern regarding the social effects or visitor experience on recreational users who may be affected by project activities, or for whom the recreational experience may be different under the proposed project compared to existing conditions. While such social effects are not considered physical effects on the environment under CEQA, these effects will be addressed in the NEPA analysis being prepared separately. The NEPA analysis will also include greater detail on existing use levels at NPS park areas to assess visitor experience impacts. While the EIR (pages 5.11-35 to 5.11-36) acknowledges that temporary disruption of the existing visitor experience would be a potential consequence of the AC34 events, the CEQA impact analysis evaluates whether increases in project-related recreational use could result in physical impacts on recreational resources, including resources in the vicinity of the project that may experience increased use due to overall increases in visitors to the area and/or due to displacement of recreation users that normally use recreational facilities in the project areas.

It is noted that EIR Impact RE-1, pages 5.11-37 to 5.11-43, includes analysis of impacts on recreational facilities associated with potential increased use by recreationists who might choose not to use AC34 venue locations or secondary viewing locations due to crowding or lack of availability of parking due to the proposed project. As indicated in Impact RE-1, given the wide availability of recreation facilities in the region and the temporal scope of the AC34 events, increased use of regional recreational facilities would not result in substantial physical deterioration of recreational resources or otherwise result in physical degradation of existing recreational resources.

Regarding transportation effects along The Embarcadero and ferry traffic in the Bay, including to Alcatraz, see Section 12.11, Responses TR-3d, TR-6c, and TR-7a.

Comment O-Dolphin2-01 indicating that AC34 events would use much of the San Francisco waterfront, which belongs to the citizens and visitors, is noted. However, the AC34 event would be a public event that would be available to citizens and visitors.

Comment O-Dolphin2-01 stating that the AC34 event should not be considered a temporary disruption due to the number of weeks per year during which the event would occur is noted. The AC34 events would take place over approximately 3 weeks during 2012 and 12 weeks in 2013. As indicated on pages 3-38 and 3-61 of the EIR, most proposed temporary installations would be removed following the AC34 2012 event, reinstalled prior to the AC34 2013 event, and then removed following the AC34 2013 event. Following the 2013 events, AC34 facilities would be restored to pre-event conditions. It is accurate to characterize these events as temporary disruptions, as they would occur over a limited time and would not be permanent.

As stated in Section 12.4, Response PD-8, it would be speculative to evaluate the potential for future America's Cup events to occur within the project area. The current EIR evaluation only addresses the proposed 2012 and 2013 races. Any future America's Cup events in these locations would be subject to a separate Host Agreement and CEQA environmental review.

Recreational facilities and use at Aquatic Park cove, Hyde Street Pier and Municipal Pier, boardsailing, and San Francisco Bay open water areas are further discussed below.

12.16.3 Aquatic Park Cove [RE-2]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-48
A-SFPC-Anto-01
A-SFPC-Fong-04
A-SFPC-Mig-01
A-SFPC-Moore-07
A-SFPC-Olag-01
O-Dolphin1-01
O-Dolphin1-02
O-Dolphin3-01
O-Dolphin3-02
O-Dolphin3-03
O-Dolphin3-05
O-Dolphin3-07
O-Dolphin3-08
O-Dolphin3-09
O-Dolphin3-10
O-Dolphin3-11
O-Dolphin3-12
O-Dolphin3-13
O-SERC-02
O-SERC-03
O-SERC-04
O-WFA-01
O-ACEC-117
O-ACEC-261
O-ACEC-263
O-ACEC-265
O-ACEC-266
I-Anderson-01
I-Bump-01
I-Coleman-01
I-Czelusta-01
I-Ferguson1-01
I-Ferguson2-02
I-Gilbert-01
I-Gilbert-02
I-Hammack-02
I-Harrison-01
I-Horn-01
I-Illick1-01
I-Illick2-01
I-Marchesani-02
I-Marchesani-03
I-McHenry-01
I-Osborne-01
I-Quarles-01
I-Robin-01
I-Rome-01
I-Rose1-01
I-Rose2-01
I-Sasaki-01
I-Scholz-01
I-Walton2-01

- Recreational uses that would be affected by the event are unique bay waterfront uses, including Aquatic Park, that are not replicated elsewhere. [A-NPS2-48, O-ACEC-265, A-SFPC-Mig-01, I-Ferguson1-01, I-Marchesani-03, I-Quarles-01, I-Rose1-01, I-Rose2-01]

- The placement of big screens is a concern and the environmental effects of those should be evaluated in the EIR. [A-SFPC-Anto-01, O-ACEC-263, I-Anderson-01, I-Gilbert-02, I-McHenry-01, I-Quarles-01]

- The AC34 activities would allow people to get to the water's edge and to experience the water. [A-SFPC-Fong-04]

- The EIR does not analyze on-water safety or accessibility impacts on recreational use at Aquatic Park. Alternative locations for the venue facilities and mitigation measures should be proposed. [A-SFPC-Moore-07, A-SFPC-Olag-01, O-ACEC-261, O-Dolphin1-01, O-Dolphin1-02, O-Dolphin3-02, O-Dolphin3-05, O-Dolphin3-07, O-Dolphin3-08, O-Dolphin3-10, O-SERC-03, O-WFA-01, I-Bump-01, I-Coleman-01, I-Czelusta-01, I-Gilbert-01, I-Hammack-02, I-Horn-01, I-Illick1-01, I-Illick2-01, I-Marchesani-03, I-McHenry-01, I-Osborne-01, I-Quarles-01, I-Robin-01, I-Rome-01, I-Walton2-01]

- The EIR describes activities that could effectively deny access to Dolphin Club and South End Rowing Club members, and deny the public access to Aquatic Park. [O-Dolphin3-01, O-SERC-02, I-Sasaki-01, I-Scholz-01]

- The proposed AC34 uses within Aquatic Park are inconsistent with the People Plan in its description of spectator boats adjacent to Aquatic Park. [O-Dolphin3-03]

- The Draft EIR does not accurately assess the length of time that Aquatic Park would be affected by AC34 activities. The EIR should provide a schedule of when regular users can have access to the park. The event is not "temporary." [O-ACEC-266, O-Dolphin3-09, O-Dolphin3-11, O-Dolphin3-13, O-SERC-04]

- The statement that direct views of races from Aquatic Park bleachers would be obstructed by Municipal Pier is false because the bleachers are elevated. [O-Dolphin3-10]
- The EIR does not address how street closures or transit delays could create access issues for existing swimmers and on-water users of Aquatic Park. [O-Dolphin3-12, I-Marchesani-02, I-Marchesani-03]
- Is a plan in place to protect historic ships docked at Hyde Street Pier from the video barge? [O-ACEC-117]
- Post-race restoration should be conducted to ensure the Bay remains safe for swimmers after AC34. [I-Ferguson2-02]
- Boats should be moored east of the Hyde Street Pier and the screen should be placed at the pier rather than at Aquatic Park. [I-Harrison-01]

Response RE-2

Regarding on-water use of Aquatic Park during AC34 and potential displacement of recreational users, as described in Response RE-1, above, the recreation resources impact significance criteria, as listed in Section 5.11.3.1, Significance Criteria, focus on whether the project would (1) increase the use of recreational facilities such that substantial physical deterioration would occur or be accelerated, or (2) cause physical degradation of existing recreational resources. As described in Section 5.11.3.2, the impact analysis determines the potential for project activities to cause direct physical effects on recreation resources (i.e., physical deterioration of facilities, acceleration of physical deterioration of facilities, or physical degradation of existing resources). Impacts related to transportation and traffic traveling to recreational facilities are not included in this analysis, but in Section 5.6, Transportation and Circulation, of the EIR.

As described in EIR Chapter 3, Project Description, the proposed AC34 venue at Aquatic Park would provide general merchandise sales and exhibitions, including boat displays, and a large video screen set on a floating platform for viewing of AC34 races; private events may also occur within the SAFR museum. The proposed AC34 merchandising area would be located in the Van Ness Avenue parking area west of the cove. The exhibition boat displays and video screen (and associated platform) would be located in the central portion of the cove, with the video platform anchored approximately 400 feet from the shoreline. Access to Hyde Street Pier would be controlled during AC34 races. In addition, Municipal Pier would be closed on race days during the periods that AC34 races occur.

In response to comments, subsequent to the publication of the Draft EIR, the intended AC34 use of the Aquatic Park cove area during the AC34 events has been clarified and refined. Currently, most Aquatic Park swimmers, including those from the Dolphin Club, swim within the cove on either side of marker buoys installed roughly parallel to a section of the beach. Some people instead swim around the inside perimeter of the cove formed by the shoreline and piers. Acknowledging the unique recreational attributes of Aquatic Park, the inner perimeter of the Aquatic Park cove would be retained as clear space throughout the duration of the AC34 events for swimming, rowing, kayaking, and other ongoing uses. As shown in Chapter 11, under the

AC34 Project Variant, the clear zone would be a minimum of 100 feet wide along the Municipal Pier perimeter, 150 feet wide between the ships permanently moored at Hyde Street Pier and the proposed AC34 boat exhibitions, and approximately 100 feet wide between the swim marker buoys and the proposed AC34 boat exhibitions/video barge. Spectator boats would be restricted from mooring in Aquatic Park.

The proposed AC34 video barge and exhibit boats would be anchored in Aquatic Park for the duration of the 2012 events, removed after the 2012 events, and reinstalled for the duration of 2013 events, before being permanently removed. The locations shown for the proposed video barge and exhibition boats in the AC34 venue plan are considered preliminary, although under any scenario, the barge and boats would always remain completely outside of the identified clear zone, and once anchored would not be relocated within the defined boundaries. CCSF has attended meetings hosted by SAFR in Aquatic Park with the South End Rowing and Dolphin Clubs focused largely on the floating video screen.

The refinements to the Aquatic Park venue plan presented for the AC34 Project Variant in Chapter 11 would allow continued use of the Aquatic Park cove for swimming and rowing/kayaking throughout the duration of the AC34 events. Establishment of the clear zone, control of boats attempting to enter the cove, and the secure mooring of the limited AC34-related exhibits would allow for safe movement within the cove by swimmers and rowers/kayakers. Thus, while the AC34 events could be an inconvenience to users of Aquatic Park, access to and availability of the cove to existing uses would be generally maintained. As described above, based on the CEQA significance criteria for recreation, the EIR determined that impacts on recreational resources at Aquatic Park to be less than significant and no mitigation measure are warranted as stated on page 5.11-41. Impacts of generator use on the video barge are addressed in noise, air quality, and water quality analyses in Sections 5.7, 5.8, and 5.16, respectively.

Comment O-ACEC-117 inquires if there is a plan in place to protect historic ships docked at Hyde Street Pier from the video barge. The combination of the proposed clear zone and anchoring of AC34 video barge and exhibition boats would ensure no conflicts with or damage to the historic ships at Hyde Street Pier. Several comments asserted that the environmental effects of the proposed video barge should be evaluated in the EIR. There would be short-term increases in noise and air quality emissions (i.e., noise from speakers associated with video screen, and noise and air emissions from the portable generator onboard the video barge that would be used to power and run the video screen). These effects are analyzed in the Section 5.7, Noise and Vibration, and Section 5.8, Air Quality, of the EIR. Due to short-term, temporary use of the video barge, no long-term environmental effects would be associated with this use.

Comment O-Dolphin3-10, which notes that views of the Bay, and therefore the races, from the existing Aquatic Park bleachers would be unobstructed because the bleachers are elevated, is partially true. From much of the Aquatic Park bleachers and from the promenade and street levels, Municipal Pier currently largely obstructs views of the Bay.

Comment O-Dolphin3-10 asserts that the EIR fails to discuss alternative venues for the video display, and recommends the City Hall area or Municipal Pier. Comment I-Harrison-01 recommends that the exhibition boats proposed in Aquatic Park be moored east of Hyde Street Pier, and that the video display be placed at the pier rather than at Aquatic Park. With respect to alternative landside locations for the video display, as discussed in Chapter 3, Project Description, the proposed project already proposes three "live sites" for viewing races on large outdoor television screens: San Francisco Civic Center, Justin Herman Plaza, and Union Square. With respect to Municipal Pier as an alternative video screen site, this location would block views of the Bay and would be too distant from the bleachers for viewing. With respect to moving the exhibition boats to an area east of Hyde Street Pier and installing the video display on the pier, this alternative location provides inadequate space to accommodate the existing uses along with proposed temporary AC34 facilities and related visitation. In any case, the EIR does not identify any significant environmental impacts associated with the temporary placement of the AC34 video barge and exhibition boats in Aquatic Park.

Regarding the comment that AC34 should not be considered a temporary disruption due to the number of weeks per year the events would occur, please see Response RE-1. As stated there, the events would take place over approximately 3 weeks during 2012 and intermittently during 12 weeks in 2013, and following the 2013 events, the area would be restored to pre-event conditions. It is accurate to characterize these events as temporary disruptions, as they would occur over a limited time and would not be permanent.

Regarding the comment that existing users of Aquatic Park would be affected by road closures, it is noted that roads could be closed on peak AC34 race days. Please see Section 12.11, Transportation and Circulation, for further discussion of possible road closures during the events. However, closure of those roads would not preclude use of Aquatic Park, which would still be open to the public. In response to Comment O-Dolphin3-03: the Draft People Plan was updated and released in September 2011. In addition, the Aquatic Park venue plan has been refined as part of the AC34 Project Variant, as described in Chapter 11.

Comment I-Illick1-01 questions what commitments have been made to the AC34 sponsors. The Host Agreement is available on the website of the Mayor's Office of Economic and Workforce development.[1]

12.16.4 Hyde Street Pier/Municipal Pier [RE-3]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-192
A-SFPC-Anto-08
O-ACEC-116
O-ACEC-117
O-ACEC-118
I-Sasaki-01

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[1] Mayor's Office of Economic and Workforce Development, website, http://sfgov.org/site/frame.asp?u=http://www.oewd.org, accessed November 11, 2011.

- The EIR should analyze the capacity of Hyde Street Pier to accommodate visitors safely while ensuring adequate water service and restroom facilities and without substantially degrading the visitor experience. [A-NPS2-192]
- Hyde Street Pier may be usable for additional functions above and beyond what is approved. [A-SFPC-Anto-08]
- The commenter questions whether there is a plan in place to protect historic ships docked at Hyde Street Pier from increased visitation by recreational boaters and racing boats, including potential collisions. [O-ACEC-116, O-ACEC-117]
- The EIR should describe protection measures that would be put in place to limit public access to Municipal Pier. [O-ACEC-118]
- The commenter expresses concern about access to Municipal Pier for walking and fishing/crabbing. [I-Sasaki-01]

Response RE-3

Comment A-SFPC-Anto-08 stating that Hyde Street Pier may be usable beyond current uses is noted. The NPS currently leases Hyde Street Pier from the Port and manages use of the pier. Historic ships, vessels, and maritime artifacts are exhibited for the public at this pier. The NPS currently controls access to Hyde Street Pier and limits use levels during high activity periods. Access to the pier would similarly be controlled during AC34 races. No additional use of the pier is proposed, and any such use would require authorization by the NPS.

As described on Draft EIR page 3-57, Municipal Pier would be closed on race days during the periods that AC34 races occur, similar to what currently occurs during major events in the area. Management of Municipal Pier closure would be conducted in coordination with the NPS. However, most of the Bay waterfront and piers would continue to be open to the public for walking, sightseeing, fishing, and other uses.

12.16.5 Boardsailing [RE-4]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-48
A-SFPC-Moore-07
O-SFBA-01
O-SFBA-02
O-SFBA-03
O-SFBA-04
O-SFBA-05
O-SFBA-06
O-SFBA-07
O-SFBA-08
O-SFBA-09
I-Apicella-01

- Recreational uses that would be affected by the event are unique Bay waterfront uses, including Crissy Field, that are not replicated elsewhere. [O-SFBA-01, A-NPS2-48]
- On-water impacts on recreation, including wind surfers and kayakers launching from Crissy Field, are not analyzed. [A-SFPC-Moore-07]

- Crissy Field (and St. Francis Yacht Club Beach) is a preferred boardsailing launch because of geography and wind conditions; other locations are less desirable and would become overcrowded if used during AC34. [O-SFBA-02]
- The Draft EIR does not acknowledge the large variety of sports pursued within the AC34 project area, nor does it identify the specific locations where these sports are pursued. [O-SFBA-01, O-SFBA-03]
- The Draft EIR does not analyze impacts on regional transportation, noise, and air quality and other effects resulting from use of other recreational areas during AC34. [O-SFBA-03, O-SFBA-04]
- Traffic impacts resulting from use of other recreation areas during AC34 should be mitigated by improving launch facilities at Cavallo Point; providing boardsailing-only access at Crissy Field, St. Francis Yacht Club, and Fort Baker; and improving launch facilities at Treasure Island. [O-SFBA-04]
- Recreational opportunities within the central portion of San Francisco Bay should be considered more thoroughly and the direct and indirect impacts on existing water-contact recreational access and uses should be identified. [O-SFBA-05]
- Boardsailing users of Crissy Field East Beach have no alternative or similar resources available. [O-SFBA-06]
- The EIR references plans that are not complete and indicates that visitor experience would be addressed in implementation plans and the NEPA analysis. [O-SFBA-07]
- The EIR should indicate why the City has not adopted significance standards for impacts on recreation and land use, and consider including access effects on shoreline facilities or water-contact recreational uses as a significance standard. [O-SFBA-08]
- The State Constitution, BCDC, Navigational Code, Bay Water Trail, and Bay Plan policies include water-oriented recreational uses and access to shoreline areas as goals and should apply to the recreational impact analysis. [O-SFBA-01, O-SFBA-09]
- Mitigation measures and alternatives have not been adequately evaluated for the loss of access and storage for recreational equipment. Access at other locations and storage facilities should be provided. [I-Apicella-01]

Response RE-4

Numerous comments were raised regarding potential effects of the AC34 project on-water use for boardsailing and similar recreational uses. As described in Response RE-1, the recreation resources impact significance criteria, as listed in Section 5.11.3.1, Significance Criteria, focus on whether the project would (1) increase the use of recreational facilities such that substantial physical deterioration would occur or be accelerated, or (2) cause physical degradation of existing recreational resources. As described in Section 5.11.3.2, the impact analysis determines the potential for project activities to cause direct physical effects on recreation resources (i.e., physical deterioration of facilities, acceleration of physical deterioration of facilities, or physical degradation of existing resources). While the EIR acknowledges that temporary disruption of existing recreational uses at the project sites would be a potential consequence of the AC34 events, the impact analysis, consistent with the requirements of CEQA, evaluates whether increases in project-related recreational use could result in physical impacts on recreational resources.

The NEPA analysis, which is being prepared separately from the CEQA process (see Section 12.3, Response INT-2), will address social or visitor experience impacts, such as impacts on recreational users who may be affected by project activities or for whom the recreational experience may be different under the proposed project compared to existing conditions. The NEPA analysis will also include greater detail on existing use levels at NPS areas to assess visitor experience impacts. The CEQA impact analysis considers whether increases in recreational use could result in physical impacts on recreational resources, including resources in the vicinity of the project that may experience increased use due to overall increases in visitors to the area and due to displacement of recreation users who normally use project facility areas.

EIR Impact RE-1 includes analysis of impacts on recreational facilities associated with potential increased use by recreationists who do not want to use AC34 venue locations or secondary viewing locations due to crowding or availability of parking. As indicated in Impact RE-1, given the wide availability of recreation facilities in the region and the temporal scope of the AC34 events, increased use of regional recreational facilities would not result in substantial physical deterioration of recreational resources or otherwise result in physical degradation of existing recreational resources. As indicated by the San Francisco Boardsailing Association website, and other websites, popular boardsailing locations in the region include the Golden Gate Bridge to the St. Francis Yacht Club area, Ocean Beach, Candlestick Point State Recreation Area, Treasure Island, Berkeley, Crown Beach in Alameda, Coyote Point in San Mateo, and northwest of the San Mateo Bridge, as well as other launch areas.

As noted by commenters, boardsailers tend to prefer locations based on wind conditions, which vary at different times of the day and seasonally, and geography. Boardsailers may frequent some locations more often based on personal preferences and source of origin, but also travel to other launch areas based on weather and wind conditions. AC34 events could take place over approximately 3 weeks during 2012 and 12 weeks in 2013, and during these times, visitor use of the Crissy Field areas would increase as a result of the project. If the racing period of a particular race day, including the period before and after racing and/or periods when AC34 onshore events at Crissy Field occur, does coincide with weather and wind conditions offshore of Crissy Field that are preferred for boardsailing, boardsailers may avoid this area if parking for Crissy Field is unavailable or limited by increased visitor use, or if open water areas are restricted. During those times, boardsailers may elect not to boardsail, or may make use of the other regional boardsailing opportunities that are available. However, on race days, AC34 race boating activities on the Bay would generally start in the late morning and continue through the afternoon (see EIR Table 3-2, page 3-32), leaving the remainder of the day available for existing in-water uses within the designated race area. Thus, on a portion of the days of 2012 and 2013 that AC34 events occur, it is likely that some of the boardsailers who frequent Crissy Field would instead use other regional areas popular for boardsailing. Given the availability of recreational facilities in the region, increased use of regional recreational facilities for boardsailing would not result in substantial physical deterioration of recreational resources or otherwise result in physical degradation of existing recreational resources. While there could be indirect effects (e.g., transportation or air quality) associated with use of other recreation areas instead of Crissy Field during these limited times, these effects would be limited due to the relatively small number of affected in-water recreationists who may choose to travel elsewhere as well as the proximity of other available locations (e.g., Ocean Beach or Candlestick Point). Therefore, indirect impacts would also be considered less than significant.

Regarding Comments O-SFBA-01 and O-SFBA-09 that plans and policies emphasize on-water recreation and shoreline access, AC34 would be a public spectator event that would be available to citizens and visitors. The AC34 event itself would include on-water recreation use by boaters of all types as spectators to the races. While the events would temporarily increase use of waterfront areas and could result in temporary closure of some roads and piers, access to the waterfront would not be precluded, and most of the Bay waterfront and piers would continue to be open to the public for walking, sightseeing, fishing, and other uses in addition to AC34-related recreation uses. In response to Comment I-Apicella-01: storage for recreational equipment is not addressed as a CEQA recreational environmental effect as long as such storage would not result in physical degradation of existing recreational resources.

The "threshold of significance" for a given environmental effect is the level at which a lead agency finds the effects of the project to be significant. CEQA Guidelines Section 15064.7 indicates that public agencies are encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects; a threshold of significance is an "identifiable quantitative, qualitative or performance level of a particular environmental effect." However, the CEQA Guidelines do not require that lead agencies adopt thresholds. As stated throughout Chapter 5 of the EIR, the City has not formally adopted significance standards, and the impact significance criteria used in the EIR are based on San Francisco Planning Department guidance regarding the environmental effects to be considered significant. This guidance, in turn, is based upon CEQA Guidelines Appendix G and the Planning Department's Initial Study checklist, both of which are readily available to the public, either upon request to the Planning Department or through its website.

In response to Comment O-SFBA-08: the significance criteria used in this EIR for the recreation and land use analysis are standard criteria used by the Planning Department for CEQA environmental review purposes and were determined to be appropriate for the proposed project. The issue of the City adopting significance standards for these topics – as well as any other environmental resource topic – is beyond the scope of this project. CEQA Guidelines Section 15064.7(b) provides for such a process, and should the City choose to adopt thresholds of significance for use as part of the lead agency's environmental review process, the significance criteria must be adopted by ordinance, resolution, rule, or regulation, and developed through a public review process and be supported by substantial evidence.

See also Response RE-5 regarding Central Bay open water recreation use.

12.16.6 Central Bay Open Water Recreation Use [RE-5]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-DBW-03
A-ABAG-02
O-Dolphin3-05
O-Dolphin3-11
O-ACEC-264
I-Czelusta-01
I-Rose1-02
I-Rose2-01
I-Walton1-02

- Visiting mariners should be provided with information to assure compliance with boating navigation and safety rules. [A-DBW-03]
- As a result of AC34 activities, commercial shipping would have to be concentrated, which would create dangerous conditions for kayakers and other non-motorized boaters. Information about these conditions should be widely distributed. [A-ABAG-02]
- Potential impacts on ongoing group swim events in the greater Bay are inadequately addressed. [O-Dolphin3-05, O-ACEC-264]
- Potential impacts and restrictions on open water swimming should be addressed in the EIR. [O-Dolphin3-11]
- The EIR should consider swimming events outside of Aquatic Park. [I-Czelusta-01, I-Rose1-02, I-Rose2-01]
- The Draft EIR does not acknowledge that the swimmers, rowers, and boaters interact in the Bay. [I-Walton1-02]

Response RE-5

In response to Comment A-DBW-03: the AC34 project would include a Water and Air Traffic Plan which would provide guidelines for adequate and safe access to the race course, as described in Chapter 3, page 3-88. The project sponsors are currently working with numerous agencies, including the United States Coast Guard (USCG) and the California Department of Boating and Waterways, in developing this plan. In addition, the EIR identifies several mitigation measures that provide specific requirements to be included in the Water and Air Traffic Plan. Mitigation Measure M-BI-4a (Restriction on Spectator Craft within Race Course Boundaries) on page 5.14-39 would require navigational and operational safety guidelines for race team, support, spectator, and large luxury yacht vessel activities associated with the AC34 events that meet USCG regulations, including provisions and restrictions to minimize the movement of spectator boats. Mitigation Measure M-BI-12 (Visiting Mariners Information) on page 5.14-100 would require procedures for dissemination of information to visiting boaters prior to or upon arrival to San Francisco Bay for the AC34 events. (Please also see Response PD-7.)

In response to Comments A-ABAG-02 and I-Walton1-02: the Water and Air Traffic Plan would also include navigational and operational safety guidelines for race-related and spectator vessels, including non-motorized boaters, as required by the USCG. ACRM is in the process of applying for a USCG Marine Event Permit. The USCG is authorized to promulgate regulations to ensure safety of life on navigable waters immediately prior to, during, and immediately after the regatta. Such regulations may include the control of vessel movements, including commercial, cargo, ferry, recreational, and event-related vessels, through a specified area immediately prior to, during, and immediately after the approved regatta. Commercial vessels would not be concentrated in such a manner as to affect recreational user safety. See Chapter 11, under Project Updates for further description of the Water and Air Traffic Plan.

Several comments (O-ACEC-264, O-Dolphin3-05, O-Dolphin3-11, I-Czelusta-01, I-Rose1-02, I-Rose2-01) relate to open water swimming in the Bay. Open water group swims in the Bay are permitted by the USCG and require use of guide boats for swimmer safety. Under the proposed project, open water group swim permitting would continue under the purview of the USCG.

12.16.7 Recreation Setting Comments [RE-6]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-96
A-Presidio-22
A-Presidio-23
A-Sausalito-14
A-MBOS-03
O-Dolphin1-02
O-Dolphin3-06
O-Dolphin3-11
O-ACEC-262
O-ACEC-264
O-ACEC-278
O-SFBA-03
I-Rose1-02
I-Walton2-01
I-Howell-01
I-Ferguson2-04
I-Hammack-02
I-O'Mahoney-01

- The following items in Table 5.11-1 should be added or revised for clarification: definition of Land Manager, location of Richardson Bay Marina, the closure of Cass's Marina, location of Sausalito Yacht Harbor and Sausalito Marinways, and subject location of Sausalito Town Square. [A-Sausalito-14]
- The description of applicable principles contained in the Presidio Trust Management Plan should be revised to include parkwide principles and recreation instead of open space guidelines or those focused on the Main Post. [A-Presidio-23]
- The descriptions of Crissy Field and land managed by the Presidio Trust should be revised for accuracy and relevance. [A-Presidio-22]
- Some attention should be given to Marin County's parks and open space such as Aramburu Island Preserve, Old St. Hilary's Open Space Preserve, Ring Mountain Open Space Preserve, Paradise Beach County Park, and McNears Beach County Park. Any potential impacts on these parks or open space areas should be mitigated. [A-MBOS-03]
- The Draft EIR fails to recognize the South End Rowing Club and the Dolphin Club. The EIR should provide discussion about these clubs and group swimming activities that occur in Aquatic Park and the wider central San Francisco Bay. [O-Dolphin3-06, O-Dolphin3-11, O-Dolphin1-02, O-ACEC-262, O-ACEC-264, I-Rose1-02, I-Walton2-01, I-Howell-01, I-Ferguson2-04, I-Hammack-02, I-O'Mahoney-01]
- The commenter provides corrections regarding the location of recreational resources on Yerba Buena Island. [O-ACEC-278]

- Section 5.11.1 of the Draft EIR omits reference to National Park Service (NPS) partners that are located and operate within the Marin Headlands, such as the Marine Mammal Center, Headlands Institute, Headlands Center for the Arts, Hostelling International, and others. [A-NPS2-96]
- The Draft EIR does not acknowledge the large variety of sports pursued within the AC34 project area nor does it identify the specific locations where these sports are pursued. [O-SFBA-03]

Response RE-6

In response to comments requesting that the EIR provide corrected names and locations of Sausalito marinas, Marin County parks and open spaces, and Dolphin Club and South End Rowing Club activities, Table 5.11-1 on EIR pages 5.11-17 through 5.11-24, is revised as shown on the following page (deleted text is shown as ~~strikethrough~~ and new text is underlined).

In response to the comment providing additional information about other marinas in Sausalito, the EIR text on page 5.11-25, last paragraph, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> **Sausalito Marinas**
>
> There are ~~eight~~ nine major marinas in Sausalito: Richardson Bay Marina, Clipper Yacht Harbor, Marina Plaza Harbor, Arques Shipyard and Marina, Schoonmaker Point Marina, ~~Cass' Marina~~ Sausalito Marinways, Sausalito Yacht Harbor, Galilee Harbor, and Pelican Yacht Harbor. See Section 5.16, Hydrology and Water Quality, for the locations of these marinas. For an overview of these marinas, refer to the discussion under the subheading "City of Sausalito," below.

In response to the comment requesting that the names of Sausalito parks and marinas be corrected, the EIR text on page 5.11-26, fourth paragraph, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> **Southern Marin County**
>
> ***City of Sausalito.*** In Sausalito, shoreline parks that could provide opportunities for viewing the AC34 race area include ~~Sausalito Town Square (also known as~~ Vina del Mar ~~Plaza)~~, Gabrielson Park, Yee Tok Chee Park, and Tiffany Park, assuming the absence of intervening obstructions on land or in the water. There are also ~~eight~~nine marinas and harbors in the City of Sausalito: Richardson Bay Marina, Clipper Yacht Harbor, Marina Plaza Harbor, Arques Shipyard Marina, Schoonmaker Point Marina, ~~Cass' Marina,~~ Sausalito Marinways, Sausalito Yacht Harbor, Galilee Harbor, and Pelican Yacht Harbor. The Sausalito Yacht Club, located just east of Gabrielson Park, could also provide opportunities for viewing the AC34 races. For an overview of facilities available at these parks and harbors, refer to Table 5.11-1.

TABLE 5.11-1
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
RECREATIONAL USES IN THE VICINITY OF PORT OF SAN FRANCISCO PIERS, WATER AREAS, AND SEAWALL LOTS			
Fisherman's Wharf	Extends north from Jefferson and Taylor Streets	Popular tourist attraction with restaurants, shops, and street performers. Provides access to tours and cruises. Offers tours of the USS Pampanito (World War II-era submarine) and access to the Musee Mecanique exhibit. Hosts many San Francisco events including firework displays for Fourth of July and Fleet Week.	Port of San Francisco
Telegraph Field	On the parking lot between Piers 27-29 off the Embarcadero at the intersection with Lombard Street	Soccer field available on a reservation-only basis; parking lot.	Port of San Francisco
Pier 7 Public Access Pier	The Embarcadero and the foot of Broadway.	900-foot long public access pier that provides seating and passive recreation, public fishing, and expansive scenic views of the Bay.	Port of San Francisco
Herb Caen Way	Approximately 3.2-mile-long promenade along The Embarcadero that runs between South Beach Pier and Pier 39	Paved pathway used by pedestrians, bicyclists, joggers, and rollerbladers.	Port of San Francisco
Levi's Plaza Park	Generally bordered by Sansome Street to the west, Filbert Street to the south, and The Embarcadero to the east	Grassy area, ponds, paved paths. Popular lunch spot for employees at Levi's Plaza.	Levi Strauss Property Management
Sydney G. Walton Square	Jackson and Davis Streets	2-acre open space area that was designed by well-known landscape architect Peter Walker. Popular lunch spot for Financial District employees.	Golden Gateway Center and Carr America
Rincon Park	Adjacent to The Embarcadero between Howard and Folsom Streets	Grassy open space area along The Embarcadero; includes the Cupid's Span sculpture.	Port of San Francisco
Ferry Building and Piers 1-5	On The Embarcadero at the terminus of Market Street	Ferry terminal and shopping center. A promenade follows the northeastern side of the Ferry Building.	Port of San Francisco
Pier 14 Public Access Pier	The Embarcadero and the foot of Mission Street.	Provides public viewing and passive recreation amenities.	Port of San Francisco
Harry Bridges Plaza	Median divider between The Embarcadero; extends from Clay Street on the north to the southern end of the Ferry Building	This space is commonly used by skateboarders and bicyclists.	Port of San Francisco
South Beach Park	Just north of AT&T Ballpark	Playground for toddlers and open grassy area.	Port of San Francisco
South Beach Harbor	Between Pier 40 and AT&T Ballpark	Consists of 700 slips with concrete docks, a 640-foot recreational and commercial guest dock, and the Pier 40 Maritime Center. Commercial services offered include kayak rentals, sailing lessons, and boat rentals. South Beach Yacht Club is located at Pier 40 and includes a clubhouse, store, and restaurant.	Port of San Francisco

TABLE 5.11-1 (Continued)
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
RECREATIONAL USES IN THE VICINITY OF PORT OF SAN FRANCISCO PIERS, WATER AREAS, AND SEAWALL LOTS (cont.)			
AT&T Ballpark	Bordered by Third Street to the southwest, King Street to the west, Second Street to the northeast, and San Francisco Bay to the east.	Baseball stadium and home to the San Francisco Giants, major league baseball franchise.	Port of San Francisco
Giants PortWalk Promenade	Waterfront promenade along the southeastern side of AT&T Ballpark; connects to Third Street.	Multiuse path used by bicyclists, hikers, and joggers.	Port of San Francisco
China Basin Park	Bordered by Third Street to the west, Terry A. Francois Street to the south, and San Francisco Bay to the north and east. Just northwest of Pier 48.	Grass area, passive recreation elevated off the sidewalk. Contains a mini baseball field.	Port of San Francisco
Mission Creek Park	Borders the northwestern shore of Mission Creek between Fourth Street to the northeast and Berry Street to the northwest.	Benches and multiuse path used by bicyclists, walkers, and joggers; public launch for hand-held water vessels (e.g. kayaks) and sports court/active recreation area at end of Mission Creek.	San Francisco Redevelopment Agency / Port of San Francisco
Pier 52 Public Boat Ramp	Pier 52	Two lane public boat ramp for trailered boat access, and kayaks.	Port of San Francisco
Warm Water Cove Park	24th and Michigan Streets	Passive recreation with a small grassy area.	Port of San Francisco
Islais Landing	At the corner of Quint Street and Cargo Way (just west of Third Street)	Small pocket park; water recreation area for kayaks, outrigger can~~n~~oes.	Port of San Francisco
Tulare Park	Between Third and Illinois Streets along Islais Creek Channel	Small pocket park.	Port of San Francisco
RECREATION FACILITIES IN THE VICINITY OF PROPOSED SPECTATOR VENUES			
Fort Baker, Marin County			
Cavallo Point	Eastern point of Horseshoe Cove	Accessible via pedestrian and bicycle path; parking available.	Golden Gate National Recreation Area
Bay Area Discovery Museum	557 McReynolds Road, Sausalito	Educational museum for young children.	Golden Gate National Recreation Area
Travis Sailing Center	East side of Horseshoe Cove	Provides sailing lessons and boat rentals.	Golden Gate National Recreation Area
Battery Spencer	West of the Golden Gate Bridge and accessible via Conzelman Road in Sausalito	Popular viewing location of the Golden Gate Bridge and San Francisco.	Golden Gate National Recreation Area
Alcatraz Island			
Alcatraz Island	Central San Francisco Bay, offshore of Fisherman's Wharf	Major museum exhibit attraction, lighthouse, guided tours, trails.	Golden Gate National Recreation Area
Crissy Field			
Fort Point Overlook	Southeastern end of Golden Gate Bridge	Offers up-close scenic views of the Golden Gate Bridge. Access to bridge sidewalks (east side is available to pedestrians and west side is open to bicyclists). Adjacent to a gift center and café.	Golden Gate Bridge, Highway and Transportation District

TABLE 5.11-1 (Continued)
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
RECREATION FACILITIES IN THE VICINITY OF PROPOSED SPECTATOR VENUES (cont.)			
Crissy Field (cont.)			
Crissy Field	Generally bordered by Long Avenue to the west, Mason Street to the south, East Beach to the north, and Yacht Road to the east.	A 22-acre tidal marsh and historic air field. Contains ample parking spaces, Torpedo Wharf, Battery East, the Warming Hut Café and bookstore, Beach Hut Café (adjacent to interim Crissy Field Center), and Café Crissy (at Mason and Halleck Streets).	Golden Gate National Recreation Area
Crissy Field Center	1199 East Beach (interim location)	Interim center provides a variety of environmental education and youth leadership programs	Golden Gate National Recreation Area
Crissy Field Overlook	Off Lincoln Boulevard and near Crissy Field Avenue	Vista point above Crissy Field that offers views of City skyline, Palace of Fine Arts, Alcatraz, and Angel Island.	Golden Gate National Recreation Area
Golden Gate Promenade (Bay Trail)	Paved promenade that runs from Fort Point through Fisherman's Wharf, Jefferson Street, Aquatic Park, Fort Mason, Marina Green, and Crissy Field, and ends at the Golden Gate Bridge.	A 4.3-mile-long multiuse trail that runs the length of Crissy Field and is accessible to bicyclists and hikers.	Golden Gate National Recreation Area
Mason Street multi-use path and bike lane (Bay Trail)	Paved path and bike lane that runs along Mason Street from the Marina Gate to West Bluff Picnic Area (west end of Crissy Field)	Multiuse path used by bicyclists, hikers, and joggers.	Golden Gate National Recreation Area
Marina Green and Vicinity			
West Harbor	Between St. Francis Yacht Club (near Baker Street/Marina Boulevard intersection) and Marina Green	Consists of 325 slips, St. Francis and Golden Gate Yacht Clubs, the Harbor Office Building, restrooms, concession stand, and four parking lots.	San Francisco Recreation and Parks Department
East Harbor	Between Marina Green and Fort Mason	Consists of 343 boat slips, City Yachts sales and fuel concession, restrooms, and two parking lots	San Francisco Recreation and Parks Department
Marina Green	Situated between East and West Harbors	An approximately 7-acre open grass field encircled by wide, paved sidewalks on all sides and four parking areas to the north, south, and west. Includes a concession stand and restroom facilities, several "par course" workout stations.	San Francisco Recreation and Parks Department
Palace of Fine Arts	Lyon and Marina Streets	A 19-acre park that consists of a rotunda and colonnades set against a lagoon, grassy areas, and a paved path. Popular place for picnicking, strolling, and jogging. The exhibition hall behind the rotunda houses the Exploratorium (described below), and the Palace of Fine Arts Theatre, which hosts concerts, dance performances, films, and other events.	San Francisco Recreation and Parks Department

TABLE 5.11-1 (Continued)
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
RECREATION FACILITIES IN THE VICINITY OF PROPOSED SPECTATOR VENUES (cont.)			
Marina Green and Vicinity (cont.)			
Exploratorium	3601 Lyon Street	An interactive museum of science, art, and human perception.	City and County of San Francisco
George R. Moscone Recreation Center	1800 Chestnut Street	Includes an indoor gym, community rooms, two play areas, a basketball court, tennis courts, four baseball diamonds, a putting green, and a fully renovated playground.	San Francisco Recreation and Parks Department
Fort Mason	Bordered by Laguna Street to the west, Bay Street to the south, and Van Ness Avenue to the east	Includes the Golden Gate National Recreation Area headquarters, historic buildings, public open spaces, and Fort Mason Center which hosts various environmental, cultural, and arts organizations. Includes the Great Meadow Lawn with a paved trail connecting Aquatic Park to Marina Green.	Golden Gate National Recreation Area
San Francisco Maritime National Historic Park	Van Ness Avenue and Beach Street	Includes a beach, concrete stadia, grassy lawns, bocce ball courts, Municipal Pier, visitor center, exhibit, Aquatic Park Bathhouse (Maritime Museum), Hyde Street Pier, and Golden Gate Promenade.	Golden Gate National Recreation Area
South End Rowing Club and Dolphin Club	500 and 502 Jefferson Street (southeast portion of Aquatic Park)	Buildings are leased to the two clubs and include storage for rowboats and kayaks, locker rooms, restrooms, lounge areas, and a weight room. Club members swim in the waters of Aquatic Park, row in the Bay, play in handball tournaments, and participate in annual triathlons such as Escape from Alcatraz.[36a]	San Francisco Recreation and Parks Department and Port of San Francisco
Recreational Facilities Near Proposed AC34 Live Sites			
Union Square	Post and Stockton Streets	Elevated landscaped plaza within the central shopping, hotel, and theater district of San Francisco. Contains restroom facilities and parking.	San Francisco Recreation and Parks Department
Justin Herman Plaza	Bordered by Sue Bierman Park to the north, commercial businesses to the west, The Embarcadero the east, and Market Street to the southwest	Open space plaza with water feature structure.	San Francisco Recreation and Parks Department
Sue Bierman Park	Washington and Drumm Streets	4.4-acre grassy open space area that borders Justin Herman Plaza to the north.	San Francisco Recreation and Parks Department
San Francisco Civic Center	Bounded by Market Street on the south, Franklin Street on the west, Turk Street on the north, and Leavenworth and Seventh Streets to the east	Two play areas at the center of Civic Center. Near City Hall, the San Francisco Main Library, and the Asian Art Museum.	San Francisco Recreation and Parks Department

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[36a] Dolphin Club website: http://www.dolphinclub.org/about.html, accessed September 26, 2011.

TABLE 5.11-1 (Continued)
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
SECONDARY VIEWING AREAS			
Marin Headlands			
Conzelman Road	In the southern part of Sausalito; extends west from the northern end of the Golden Gate Bridge	This road provides scenic views of the San Francisco Bay and includes several roadside pullouts. The road is commonly used by cyclists and connects the Golden Gate Bridge with the Marin Headlands.	City of Sausalito
Kirby Cove Campground	Approximately 3,000 feet west of the Golden Gate Bridge	Campground with four sites; open April through October.	Golden Gate National Recreation Area
Bicentennial Campground	Approximately 2,000 feet west of Kirby Cove Campground	Campground with three sites; open year-round	Golden Gate National Recreation Area
Point Bonita Lighthouse	Point Bonita (accessible via Bunker Road and Field Road)	Lighthouse accessible via 0.5-mile trail.	Golden Gate National Recreation Area
Bird Island Overlook	Western terminus of Fort Barry Road	Scenic overlook of Bird Island and the Pacific Ocean; parking lot.	Golden Gate National Recreation Area
Rodeo Beach	Near western end of Conzelman and Field Roads	Beach, picnic tables, restroom facilities, and parking facilities. Private events and functions (weddings, receptions, organized events, etc.) require special use permits.	Golden Gate National Recreation Area
Angel Island State Park			
Angel Island	Within Central San Francisco Bay, east of the town of Tiburon and north of Alcatraz Island	Consists of numerous group picnic areas, campsites, restroom facilities, snack bar, visitor center, and café. Trails that encircle the island include the Sunset Trail and Ida Trail. Roads that are accessible to bicyclists and hikers include the Perimeter Road, Point Stuart Loop, and the Fire Road. Other destinations on the island include Battery Ledyard, Battery Drew, and the Nike Missile Site.	California Department of Parks and Recreation
City of Sausalito			
Tiffany Park	Easterly side of Bridgeway at east end of North Street	Small sand beach.	City of Sausalito
Yee Tock Chee Park	Bay side of Bridgeway at Princess Street	Passive park with landscaping, lights, benches, and access to water. Scenic views of San Francisco available.	City of Sausalito
Gabrielson Park	Outboard of Parking Lot #1 which fronts on Anchor Street	Lawn area, benches, sculpture and view across Richardson Bay.	City of Sausalito
~~Sausalito Town Square~~ Plaza Vina del Mar	Intersection of Bridgeway, Anchor, and El Portal Streets	~~Also known as Vina del Mar Plaza, t~~This plaza ~~serves as the town square of Sausalito~~is a Point of Historical Interest. Consists of a greenbelt area with fountain and landscaping.	City of Sausalito
~~Richardson Bay Marina~~	~~100 Gate Six Road~~	~~Consists of 220 slips.~~	~~City of Sausalito~~

TABLE 5.11-1 (Continued)
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
		SECONDARY VIEWING AREAS (cont.)	
City of Sausalito (cont.)			
Clipper Yacht Harbor	310 Harbor Drive	Private harbor that consists of 700 slips and a fuel dock and is home to a large portion of Sausalito's sportfishing fleet. Tenants accepted on an application basis.[37]	City of Sausalito
Marina Plaza Harbor	2320 Marinship Way between downtown Sausalito and Harbor Road	Private harbor that consists of 103 slips. Tenants accepted on an application basis.[38]	City of Sausalito
Schoonmaker Point Marina	85 Liberty Ship Way, #205	Full-service private marina with 160 slips. Also includes a café and an adjacent sandy beach that can be used to land or launch kayaks and dinghies. Temporary and permanent berthing available as space permits.[39]	City of Sausalito
~~Cass' Marina~~	~~1702 Bridgeway at Napa Street~~	~~Private marina that offers sailboat rentals, sailing classes, and adventure charters.[40]~~	~~City of Sausalito~~
Galilee Harbor	300 Napa Street	Maintained by the Galilee Harbor Community Association, a member-run cooperative community composed of artists and marine workers, this harbor is home to many boat builders and their respective families.[41]	City of Sausalito
Pelican Yacht Harbor	Just north of and adjacent to Sausalito Yacht Harbor	Private marina that consists of 90 slips with many classic wooden boats. Does not include guest slips.	City of Sausalito
Arques Shipyard and Marina	2350 Marinship Way Sausalito (south of Clipper Yacht Harbor)	Small private marina that is part of the Arques Shipyard.	City of Sausalito
Sausalito Yacht Harbor	501 Humboldt Avenue	Private marina that provides approximately 600 berths.	City of Sausalito
Sausalito Yacht Club	Humboldt Avenue and Anchor Street, adjacent to Gabrielson Park	Private clubhouse, bar, and restaurant.	City of Sausalito
Sausalito Marinways	225 Locust Street	Provides approximately 54 berths.	City of Sausalito

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[37] Boating San Francisco website: http://www.boatingsf.com/catpage.php?category=marina&region=&showmap=1, accessed April 2011.

[38] Ibid.

[39] Ibid.

~~[40] Ibid.~~

[41] Galilee Harbor Community Association website: http://www.galileeharbor.org/index.html, accessed April 2011.

TABLE 5.11-1 (Continued)
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
		SECONDARY VIEWING AREAS (cont.)	
Town of Tiburon and City of Belvedere			
Shoreline Park	Along the Tiburon shoreline, extending from the corner of Tiburon Boulevard and Paradise Drive to the corner of Paradise Drive and Mar West Street	Passive park consisting of a strip of grass and paved walkway along the Tiburon shoreline.	Town of Tiburon
Waterfront Area along Beach Road	Beach Road along the southeastern side of Belvedere.	Paved walkway along the Belvedere Cove waterfront.	City of Belvedere
Other Areas of Marin County			
Richardson Bay Marina	100 Gate Six Road	Consists of 220 slips.	Unincorporated Marin County
Paradise Beach County Park	3450 Paradise Drive, Tiburon	Consists of 11 picnic areas available on a reservation basis, lawn areas, restrooms, and parking.[41a]	Marin County Parks and Open Space
McNears Beach County Park	201 Cantera Way, San Rafael	Consists of beach, tennis courts, pool, and six picnic areas available on a reservation basis.[41b]	Marin County Parks and Open Space
Old St. Hilary's Open Space Preserve and Tiburon Uplands Preserve	Approximately 0.25 mile south of Paradise Beach County Park	122-acre preserve with hilltop views of San Francisco Bay.[41c]	Marin County Parks and Open Space
Aramburu Island Preserve	Northwestern portion of Richardson Bay near Mill Valley	17-acre island that is currently undergoing habitat enhancement work.[41d]	Marin County Parks and Open Space
Ring Mountain Open Space Preserve	Generally bounded by San Pablo Bay to the north, the town of Tiburon to the east, and the town of Mill Valley to the south and west.	367-acre preserve that consists of several trails that offer views of San Francisco Bay and surrounding areas.[41e]	Marin County Parks and Open Space
Treasure Island and Yerba Buena Island			
Fogwatch Picnic Area	Western side of Treasure Island	Picnic area located on the western shore of Treasure Island offering unobstructed views of the San Francisco skyline. Available on a reservation-only basis.	U.S. Navy

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[41a] Marin County Parks and Open Space website: http://www.maringov.org/Home/Depts/PK/Divisions/Open%20Space/Main/PreserveMaps.aspx, accessed September 30, 2011.

[41b] Ibid.

[41c] Ibid.

[41d] Ibid.

[41e] Ibid.

TABLE 5.11-1 (Continued)
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
SECONDARY VIEWING AREAS (cont.)			
Treasure Island and Yerba Buena Island (cont.)			
Treasure Island Great Lawn	Western side of Treasure Island	An approximately 126,500-square-foot expansive grass area located on the western shore of the island. Contains 400 parking spaces. Available on a reservation-only basis.	U.S. Navy
Treasure Isle Marina	Clipper Cove Way (between Treasure Island and Yerba Buena Island)	Accommodates about 100 slips.	U.S. Navy
Yerba Buena Island	Throughout Yerba Buena Island	Unnamed beach areas and picnic grounds at the foot of Clipper Cove, and a multipurpose field located near the peak of Yerba Buena Island.	U.S. Navy
Golden Gate Bridge			
Golden Gate Bridge	Highway 1/101 bridge that connects San Francisco to Marin County	A 1.7-mile-long bridge containing sidewalks along both sides that are accessible to pedestrians and bicyclists during daylight hours. The southeast side of the Golden Gate Bridge includes a visitor center, parking lot, renovated garden, and the Fort Point Overlook.	Golden Gate Bridge, Highway and Transportation District
Presidio of San Francisco and Vicinity			
Fort Point National Historic Site	End of Marine Drive at the Presidio (east of the Warming Hut)	Special programs and exhibits related to the fort's history.	Golden Gate National Recreation Area
Main Post	Lincoln Boulevard and Montgomery Street	Includes a main parade ground that is widely used for special events such as the San Francisco Marathon, Escape from Alcatraz, and the KNBR Bridge to Bridge race. Other attractions in the vicinity of the Main Post include the Presidio Bowling Center and the Walt Disney Family Museum.	Presidio Trust
San Francisco National Cemetery	Northern center of the Presidio (just south of Lincoln Boulevard and east of Veterans Boulevard)	30-acre cemetery for the nation's military veterans and their families. This cemetery overlooks the San Francisco Bay and includes a vista point at the southern end of the cemetery accessible by the Bay Area Ridge Trail.	Presidio Trust
Baker Beach	Western coast of the Presidio. Generally west of Lincoln Boulevard, just north of the water treatment plant (accessible via Gibson Road)	Beach with picnic area, barbecue pits, restroom facilities, parking lots, and nature viewing area. Adjacent to Batter Chamberlin and Battery Crosby.	Golden Gate National Recreation Area
China Beach	West of El Camino Del Mar and between Baker Beach and Land's End	Beach with picnic area, barbecue pits, and parking lot.	Golden Gate National Recreation Area

TABLE 5.11-1 (Continued)
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
		SECONDARY VIEWING AREAS (cont.)	
Presidio of San Francisco and Vicinity (cont.)			
Lands End	Generally bounded by El Camino Del Mar, Lincoln Park to the east, Point Lobos Avenue to the south, and the Pacific Ocean to the west	Includes the Eagles Point Overlook, Cliff House, Sutro Bath ruins, USS San Francisco Memorial, picnic areas, and several coastline hiking trails offering views of the Golden Gate Bridge, Marin Headlands, Point Reyes, and Pacific Ocean.	Golden Gate National Recreation Area
Northern San Francisco Hillside Locations			
Coit Tower and Pioneer Park	1 Telegraph Hill Boulevard	Coit Tower consists of an observation deck accessible by elevator that offers views of the city and Bay. The tower is surrounded by Pioneer Park and trails winding around the tower and down the hill. Has a parking lot.	San Francisco Recreation and Parks Department
Russian Hill Park and Open Space	Hyde and Bay Streets	An approximately 1-acre open space park that is handicap accessible.	San Francisco Recreation and Parks Department
Lafayette Park	Gough and Washington Streets	An approximately 11.5-acre open space park with restroom facilities.	San Francisco Recreation and Parks Department

SOURCE: ESA 2011.

In response to the comment providing corrections regarding the location of recreational areas on Yerba Buena Island, the EIR text on page 5.11-27, first paragraph, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> **Treasure Island and Yerba Buena Island**
>
> Viewing areas on Treasure Island include areas along the western shoreline. Spectators could potentially use the Great Lawn, Fogwatch Picnic Area, and the Treasure Isle Marina to watch the AC34 races. On Yerba Buena Island, a small beach area and picnic ground at the foot of Clipper Cove may serve as a potential gathering area for a limited group of spectators wishing to use the western slope of the island to view the AC34 race events~~viewing location for a limited group of people~~.

In response to the comment requesting that the EIR describe the wide variety of sports at specific locations within the AC34 project area, the discussion of recreational activities that occur at Crissy Field is augmented as follows on EIR page 5.11-13 (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> ***Crissy Field.*** Located west of the San Francisco Marina and east of the Golden Gate Bridge, Crissy Field features 100 acres of nature-related and history educational opportunities, along with recreation opportunities that include a 22-acre restored tidal marsh and dunes, the scenic Golden Gate Promenade, restored historic airfield, bleachers, and the Crissy Field Center. The Golden Gate Promenade is a segment of the Bay Trail and generally follows the northern edge of Crissy Field. East Beach, located east of the tidal marsh area, consists of several picnic areas, parking, and restroom facilities. East Beach is a popular launching site for windsurfers and kitesurfers. The Crissy Field Center hosts numerous environmental programs for children and families. Other facilities within Crissy Field include the Marine Sanctuary Visitor Center, the Warming Hut Café, and the West Bluff picnic area.[24, 25]

In response to the comment requesting that the discussion of Crissy Field be augmented to note facilities for active recreational use in Area B, the EIR text on page 5.11-13, last sentence of the fourth full paragraph, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> ~~Other facilities within Crissy Field include the Marine Sanctuary Visitor Center, the Warming Hut Café, and the West Bluff picnic area.[24 25]~~ Additional indoor recreational facilities exist adjacent to Crissy Field and include a climbing gym, a trampoline park, a bike rental facility, and a swimming pool for aquatic classes.

In response to the comment requesting that NPS park partners within the Marin Headlands be addressed, the following text is added at the end of the fourth paragraph on EIR page 5.11-14 (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> In addition, NPS partners that are located and operate within the Marin Headlands include the Marine Mammal Center, Headlands Institute, Headlands Center for the Arts, Hostelling International, and YMCA Point Bonita. The NPS operates fee programs, concession operations, and special park uses, such as interpretive walks.

Also, for accuracy, the last sentence of the third full paragraph and the fourth full paragraph on EIR page 5.11-15 is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> The Presidio Trust manages the inland portion (approximately 80 percent) of the Presidio's approximately 1,491 acres, including the portion of Crissy Field from Mason Street south; the coastal areas (approximately 20 percent), including the portion of Crissy Field north of Mason Street, are managed by the NPS.

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[24] ~~Golden Gate National Recreation Area (GGNRA) maps, available online at http://www.nps.gov/goga/planyourvisit/maps.htm, accessed April 2011.~~

[25] ~~Golden Gate National Parks Conservancy, Crissy Field Center website, http://www.parksconservancy.org/our-work/crissy/, accessed April 2011.~~

> ~~Attractions at~~ Recreational facilities in the Presidio include the ~~Main Post, the San Francisco National Cemetery, the~~ Presidio Golf Course, the Presidio Bowling Center, ~~the Walt Disney Family Museum,~~ Mountain Lake Park, Rob Hill Campground, the Presidio Community YMCA, and numerous playgrounds, tennis and basketball courts, multiuse fields, picnic areas, ~~scenic overlooks,~~ trails, and bicycle routes~~, and camping areas~~.

In response to comments requesting that the South End Rowing Club and Dolphin Swimming and Boating Club be described further in the EIR, the following paragraph is added after the third paragraph on EIR page 5.11-6 (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> ***South End Rowing Club and Dolphin Club Facilities.*** The SFRPD leases two buildings located at 500 and 502 Jefferson Street (in the southeastern portion of Aquatic Park) to the South End Rowing Club and the Dolphin Club. The clubs provide boathouses and launching facilities for rowers, kayakers, and canoe paddlers, including providing historic wooden craft for club members' use in the Bay. Other facilities at this location include locker rooms, restroom and shower facilities, lounge areas, and a weight room. Both buildings are open to the public on alternate days each month, Tuesday through Saturday. The South End Rowing Club and Dolphin Club have operated continuously since 1878 and 1877, respectively, and have resided in Aquatic Park since the early 1900s. The two clubs have approximately 2,000 members in total. Primary activities hosted by the two clubs include swimming, rowing, handball, running activities, and events both at and in the vicinity of Aquatic Park. Aquatic Park is also commonly used by kayakers. Club members and other recreationists swim in Aquatic Park on a daily basis, generally during the early morning and evening hours. Aquatic Park is more commonly used by swimmers during late summer and early fall, because these are the warm water months. The clubs also sponsor large aquatic events in San Francisco Bay, including the Alcatraz Invitational, the New Year's Day Alcatraz Swim, the Escape from Alcatraz Triathlon, and several other rowing regattas.[3a,3b]

In response to the comment requesting that the discussion under the heading "Presidio Trust Management Plan" be modified to reflect open space guidelines, the EIR text on page 5.11-29 is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> **Presidio Trust Management Plan**
>
> ~~The 2002 *Presidio Trust Management Plan* contains planning principles that guide the Presidio Trust to fulfill its goals of preserving and enhancing the park's resources within the Presidio of San Francisco Main Post, which is managed by the Presidio Trust. This plan also describes land use preferences for future rehabilitation and leasing of the Presidio's amenities. The following guidelines related to preservation of open space, vegetation, and views are relevant to the proposed project:~~

[3a] Dolphin Club website: http://www.dolphinclub.org/about.html, accessed September 26, 2011.
[3b] South End Rowing Club website: http://www.south-end.org/club.shtml, accessed September 26, 2011.

- ~~"***Spatial Organization and Land Patterns Guideline***: Maintain the Main Post as the 'heart of the Presidio' through rehabilitation, reuse, and interpretation of historic buildings, open spaces, and archeological resources. Consider selective placement of compatibly-scaled infill construction and/or landscape treatments to strengthen the articulation of the historic open spaces and provide a rich visitor experience.~~

- ~~***Guidelines for Open Space/Vegetation/Views***: Improve pedestrian and visual connections between the Main Post and Crissy Field. Reinforce the historic connection along Halleck Street. Incorporate an open space connection to Crissy Field as part of the planning for reconstruction of Doyle Drive.~~

- ~~***Guidelines for Open Space/Vegetation/Views***: Preserve Mason Street as an open streetscape with expansive views. Retain the 'open' setting and feel of Crissy Field; limit the introduction of vast, new landscape plantings."~~[45]

The 2002 Presidio Trust Management Plan describes the Presidio's cultural, natural, scenic, and recreational resources, and provides planning principles that will ensure that the Presidio is preserved, protected, and enhanced for the public's benefit. The planning principles are interrelated, and taken together guide actions and decision-making by the Presidio Trust. The following principles pertaining to recreational use and special events are relevant to the proposed project:

- ***"Recreational Use.*** The Trust is committed to providing diverse opportunities for both passive and active recreation, and to maintaining an atmosphere that is open, inviting, and accessible to visitors. In providing these opportunities, the Trust will consider what activities are best suited to the Presidio, and will balance recreational opportunities with resource protection. To achieve this balance, the Trust will consider the type and level of visitor use that can be accommodated while sustaining the desired resources and visitor experience conditions…"

- ***"Special Events and Festivals.*** The Presidio's open space and recreational amenities will be managed to provide settings for public programs, activities, and events. The Trust is committed to making the park increasingly accessible to the public and will facilitate public use of the park for festivals and special events, such as marathons or bike rides. The Trust will identify ways to monitor these events and to anticipate and address potential impacts on park resources, neighbors, and the visitor experience."[45]

The Presidio Trust Management Plan Final EIS includes the following mitigation measures to manage visitor uses and special events, which would also apply to the proposed project:

- "CO-6 Management Controls. The Trust would impose management controls on visitor uses, if necessary, to ensure that the Presidio's resources are protected. If an ongoing or proposed activity would cause unacceptable impacts to park resources, adjustments would be made to the way the activity is conducted, including placing limitations on the activity, so as to eliminate the unacceptable impacts. Any

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~~[45] Presidio Trust, 2002, Presidio Trust Management Plan, available online at http://www.presidio.gov/trust/documents/environmentalplans/ptmp.htm, accessed May 2011.~~

[45] Presidio Trust, 2002, Presidio Trust Management Plan, available online at http://www.presidio.gov/trust/documents/environmentalplans/ptmp.htm, accessed May 2011.

restrictions would be based on professional judgment, law and policy, the best available scientific study or research, appropriate environmental review, and other available data. As visitor use changes over time, the Trust would decide if management actions are needed to keep use at acceptable and sustainable levels."

- "CO-7 Special Events. The Trust would require appropriate permit conditions for special events to ensure that park resources are protected."
- "CO-8 Monitoring of Visitor Levels. The Trust would monitor visitation levels to ensure that park uses would not unacceptably impact Presidio resources, including visitor experience. Visitor carrying capacities for managing visitor use would be identified if necessary."[45a]

None of the above revisions changes the analysis or conclusions presented in the EIR.

12.16.8 Mitigation Measure M-RE-1: Protection of Recreational Resources [RE-7]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-97
A-ABAG-05
A-Belvedere-06
A-MBOS-03
A-MCCDA-10
A-NPS2-156
A-NPS2-162
A-NPS2-178
A-NPS2-187
A-Sausalito-09
A-Tiburon-04
O-GGNPC1-01
O-GGNPC2-01
O-GGNPC2-05
O-GGNPC2-06
O-GGNPC2-07
O-PSCF-02
O-PSCF-03
O-WW-38

- Under Mitigation Measure M-RE-1, the use of volunteers to protect and monitor recreation resources of special concern is considered insufficient by the NPS, and the mitigation measure does not address direct impacts. [A-NPS2-97]
- The EIR should include mitigation that requires improvements to the launch sites on the back side of Treasure Island. [A-ABAG-05]
- The EIR should mitigate impacts on Belvedere, Tiburon, Sausalito, and County of Marin parks and open space. The CCSF and project sponsors should enter into an MOU with Sausalito for completion of restoration of degraded resources. [A-Belvedere-06, A-MBOS-03, A-MCCDA-10, A-Sausalito-09, A-Tiburon-04, A-MCCDA-10]
- The EIR (or forthcoming NEPA document) should analyze site-specific effects on adjacent recreational resources due to use of proposed temporary facilities and events associated with AC34, and effects of crowding due to the typical influx of summer visitors, local users of park lands, and visitors attempting to view the races and AC34 events. The CCSF should hire an expert consultant to address these issues. [A-NPS2-162, A-NPS2-156, A-NPS2-178, A-NPS2-187]

[45a] Presidio Trust, 2002, Presidio Trust Management Plan Final EIS, available online at http://www.presidio.gov/trust/documents/environmentalplans/final_eis.htm, accessed September 2011.

- The project should protect all areas and facilities of Crissy Field and Crissy Field Center. The EIR should define mitigation measures for Crissy Field and other national park sites and identify financial resources for such measures. [O-GGNPC1-01, O-GGNPC2-01, O-GGNPC2-05, O-GGNPC2-06, O-GGNPC2-07, O-PSCF-02, O-PSCF-03]
- Mitigation Measure M-RE-1 defers development of the mitigation measure until after project approval. Further, there is no evidence that the performance standards of the mitigation measure are achievable. [O-WW-38]

Response RE-7

As described in the EIR, Chapter 3, pages 3-84 to 3-85, AC34 would employ best management practices as part of the proposed project, include post-event site restoration. With the removal of all temporary AC34 event facilities and restoration of spectator sites (including Crissy Field) to their existing conditions, the increased use of recreational facilities at the spectator venues would not result in substantial physical deterioration of recreational resources or otherwise result in physical degradation of existing recreational resources. Therefore, the EIR determined that recreational resources impacts at AC34 venue sites would be less than significant. However, the EIR (page 5.11-43) identifies Mitigation Measure M-RE-1 (Protection of Recreational Resources), which focuses on secondary viewing areas that are not included in the restoration actions described in the project description.

Regarding the comments requesting that measures to mitigate potential impacts on Belvedere, County of Marin, Tiburon, and Crissy Field and other NPS resources be included, it is noted that Mitigation Measure M-RE-1 includes coordination with the City of Belvedere, County of Marin, Town of Tiburon, and the NPS to identify sensitive recreation resources at secondary viewing locations that could be affected by the proposed project. This mitigation measure also includes coordination with the above-mentioned entities to identify protective measures such as increased service levels for restrooms and trash collection, crowd control, and post-event restoration, as requested. EIR Section 5.14, Biological Resources, describes potential impacts on eelgrass beds, shellfish beds, and spawning areas, including those in the vicinity of the City of Belvedere, and includes mitigation measures to address these impacts. It is noted that the County of Marin and Golden Gate National Parks Conservancy have identified an initial list of sensitive park resources that should be addressed under Mitigation Measure M-RE-1. Protection measures and post-event restoration requirements for these areas will be developed in coordination with the applicable land management agencies during implementation of Mitigation Measure M-RE-1, and the specialized nature of individual resources will be described at that time. Further, Mitigation Measure M-RE-1 requires determination of the existing condition of resources, and monitoring of conditions as recommended in Comment A-MCCDA-10 could be implemented if determined appropriate during agency coordination. Please also note that Chapter 11, presents refinements to the AC34 race area as part of the AC34 Project Variant, which would affect anticipated visitation in certain secondary viewing areas.

Regarding the comment that the City and County of San Francisco (CCSF) and the project sponsors should enter into a Memorandum of Understanding (MOU) with Sausalito to ensure that mitigation measures are enforced, and the comments that the EIR should identify funding to offset costs to Tiburon and Crissy Field/NPS, it is noted that implementation of Mitigation Measure M-RE-1 and all other mitigation measures is expected to be included in the project approval action. Thus, the mitigation measures will be conditions of approval for the proposed project and must then be implemented. Further, the necessary agreements will vary, depending on the applicable agency. Note that CEQA does not require analysis of a project's revenue needs or effects. Mitigation Measure M-RE-1 has been revised, as shown below, but does not specifically require a Memorandum of Understanding or cost recovery agreements as the necessary approach. Please also see Response GEN-2, which discusses how funding issues are handled under CEQA.

Comment A-NPS2-156 requests that the CCSF hire an expert consultant to address visitor flow, visitor experience, and other NEPA requirements. These comments are noted. In support the NEPA process, such an expert was hired to assist with these issues.

Regarding Comment A-NPS2-97 that use of volunteers to protect and monitor recreation resources of special concern is insufficient for NPS resources, it is noted that Mitigation Measure M-RE-1 includes other public lands in addition to NPS lands and use of volunteers may be sufficient at these locations, depending on the nature of potentially affected resources and proximity to high-use AC34 activity areas. Therefore, Mitigation Measure M-RE-1 has been revised, as shown below, to allow for volunteers and/or enforcement personnel, as determined appropriate in coordination with recreation resource managers.

Regarding Comment O-WW-38 that mitigation has been deferred, while Mitigation Measure M-RE-1 does reference the Parks Event Operations Plan, description of the mitigation measure has not been deferred to development of the plan. Rather, the mitigation measure describes details that must be incorporated into the plan and ongoing agency coordination. Implementation of Mitigation Measure M-RE-1, and all other mitigation measures, would be included in the project approval action; thus, the mitigation measures would be conditions of approval for the proposed project and must then be implemented. Implementation of mitigation measures would be in accordance with the Mitigation Monitoring and Reporting Program adopted as part of project approval, and would be tracked by the San Francisco Planning Department. For example, even if a Parks Event Operations Plan were not implemented as part of the project, the protective measures detailed in Mitigation Measure M-RE-1 would still need to be implemented. Please see Section 12.6, Response IO-4, for further discussion of mitigation measures and their relationship to implementation plans.

In response to comments that mitigation measures must include performance standards: the post-event repair component of Mitigation Measure M-RE-1 includes a distinct performance standard. Identification of recreation resources of special concern would allow the project sponsor and local agencies and jurisdictions to identify resources that would be subject to crowd control and post-event repair. Crowd control measures would ensure that impacts on identified resources are reduced or avoided. Implementation of post-event repairs, with the identified performance standard that resource areas of special concern are returned to their previously identified pre-project condition (to the extent damaged by event activities), would be required to reduce impacts to recreation resources to less-than-significant levels. The standard to return areas to pre-project conditions is common practice, regularly required for construction projects, and can feasibly be achieved. There is no evidence to suggest that recreation resources, including turf areas, trails/pathways, and restrooms, could not be repaired.

In response to the above-described comments, Mitigation Measure M-RE-1 on EIR page 5.11-43 is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> **Mitigation Measure M-RE-1: Protection of Recreational Resources**
>
> As described in the Project Description, the *Parks Event Operations Plan* (applicable to NPS, Presidio Trust, California Department of Parks and Recreation, and SFRPD) will be prepared and implemented in support of the proposed project. Also as described in the Project Description, the City and Event Authority are coordinating with local agencies and jurisdictions (including BCDC, Marin County, Sausalito, Tiburon, and Belvedere). As the plan and agency coordination are still under development, this mitigation measure requires that the plan and ongoing agency coordination to incorporate specific elements to protect recreational resources through protection and restoration requirements. The *Parks Event Operations Plan* and the agency coordination shall each include, for their respective jurisdictions, the following measures to protect and restore recreational resources:
>
> - ***Identification of Recreational Resource Areas of Special Concern.*** Agency coordination shall include identification of recreational resource areas of special concern to land management agencies (e.g., Crissy Field picnic area near the Warming Hut) that could provide attractive spectator viewing opportunities, determination of the existing condition of resources, ~~and identify~~ identification of requirements for additional service levels at recreational facility restrooms and trash/recycling needs, and identification of any necessary agreements, such as a memorandum of understanding or memorandum of agreement, to document commitments regarding protection and restoration of recreation resource areas of special concern.
>
> - ***Crowd Control:*** The project sponsor shall ensure that crowd control volunteers and/or enforcement personnel are posted at or near the recreation resources identified to be of special concern in order to manage crowd levels at those locations. The exact number, location, and timing of the crowd control volunteers shall be determined in consultation with the appropriate land authority where the indirect impacts are anticipated.
>
> - ***Post-Event Repair:*** Following each of the 2012 and 2013 AC34 events, the project sponsor shall ensure that recreational resource areas of special concern are returned to their previously identified pre-project condition to the extent damaged by event activities, which could include trash collection, facility repairs, restroom maintenance, pavement washing, trail repair, revegetation, and resodding.

This revision does not change the analysis or conclusions presented in the EIR.

As described on EIR page 5.11-42, it is possible that, on peak use days, some recreationists who currently use the secondary viewing areas (including non-motorized boaters) may not want to use these areas due to crowding or lack of availability of parking. Some recreationists may instead use other similar regional recreational facilities, resulting in occasional increases in use of other recreational facilities, such as Treasure Island, for launching of non-motorized boaters. Given the availability of recreation facilities in the region, however, increased use of regional recreational facilities would not result in substantial physical deterioration of recreational resources, such as launch areas at Treasure Island, and mitigation to improve Treasure Island launch areas is not warranted under this project.

12.16.9 Revenue/Socioeconomic Impacts [RE-8]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-96 A-SFPC-Moore-6 O-CPCFC-02

- Park partners and the NPS may experience lower attendance and lower revenues during AC34 event days. [A-NPS2-96]
- Municipal Pier is used by people in the city as a food resource and would be affected by closure during race days. [A-SFPC-Moore-6]
- Funding and operating support would be required to ensure public safety, security, and access and to ensure restoration of Crissy Field. [O-CPCFC-02]

Response RE-8

CEQA focuses on physical environmental impacts, as described above in Response RE-1. Under CEQA, effects on revenue and other socioeconomic effects associated with the proposed project are not considered a significant effect on the environment. The NEPA analysis being prepared separately will address socioeconomic issues associated with the proposed project. Please also see Section 12.2, Response GEN-2, which explains how funding issues are handled under CEQA, and Section 12.3, Response INT-2, which discusses the ongoing NEPA process.

12.16.10 Cumulative Impacts [RE-9]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

O-WW-39

- The cumulative recreation analysis is inadequate as it does not include any analysis or evidence to support the conclusion. [O-WW-39]

Response RE-9

Comment O-WW-39 does not identify the specific analysis or evidence that is purported to be lacking in the cumulative impact analysis. The cumulative impact analysis is consistent with CEQA Guidelines Section 15130(b), which states that the discussion of cumulative impacts must reflect the severity of the impacts and their likelihood of occurrence but need not provide as much detail as is provided for the effects attributable to the project alone. Section 15130(b) states that the discussion should be guided by standards of practicality and reasonableness and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects that do not contribute to the cumulative impact. The recreation resources cumulative impact analysis identifies other known projects that could result in increased recreational use that could affect recreational resources in the project area and indicates that sufficient existing opportunities exist to serve these projects without substantial degradation of existing recreational resources.

12.16.11 Comments Not Associated with the Proposed Project or No Specific Comment [RE-10]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-SFPC-Anto-06	O-CPCFC-01	I-Marchesani-01

- There are areas of the waterfront that are inaccessible and are not as clean as they should be. It would be an advantage to clean up some areas and make them more accessible so that there are more usable areas. [A-SFPC-Anto-06]
- The commenter summarizes Crissy Field restoration and Crissy Field Center programming (as an introduction to CPCFC's detailed comments). [O-CPCFC-01]
- The commenter expresses concern about lack of detail and specificity in the Draft EIR regarding recreation, public access along the waterfront, and environmental impacts. [I-Marchesani-01]

Response RE-10

Comment A-SFPC-Anto-06 indicates that it would be an advantage to make currently unclean and inaccessible waterfront areas cleaner and more accessible so that they are more usable. In response to Comment A-SFPC-Anto-06: the proposed project does not include and would not affect inaccessible waterfront areas. Thus, cleanup and access improvements in such areas are not necessary to address the environmental impacts of the proposed project.

Comment O-CPCFC-01 summarizes Crissy Field restoration and Crissy Field Center programming. In response to Comment O-CPCFC-01: informational comments regarding Crissy Field restoration and Crissy Field Center programming are noted.

Regarding Comment I-Marchesani-01 asserting that the Draft EIR lacks detail and specificity about recreation, public access along the waterfront, and environmental impacts, no specific comment or concern was included to support the assertion. EIR Section 5.11, Recreation, provides a comprehensive description of the existing setting, analysis of impacts associated with the proposed project, and identification of feasible mitigation measures, in full compliance with CEQA requirements. Additional comments on recreation submitted by this commenter, Comments I-Marchesani-02 and Comment I-Marchesani-03, are addressed in Response RE-2, above. Public access along the waterfront is addressed in several places in the EIR, including in Chapter 4 (Plans and Policies) and Section 5.2 (Land Use), where public access is discussed as it pertains to relevant land use and planning policies.

12.17 Utilities and Service Systems

12.17.1 Overview of Comments on Utilities and Service Systems

The comments and corresponding responses in this section cover topics in Chapter 5, Section 5.12, of the EIR. These include topics related to:

- UT-1, Solid Waste Setting
- UT-2, Condition of Existing Aquatic Park Restrooms
- UT-3, Provision of Landside Water, Wastewater, and Solid Waste Services During the AC34 Events
- UT-4, Provision of Boat Wastewater Pump-Out Facilities
- UT-5, Future Long-Term Development Utilities and Service Systems Impacts
- UT-6, Tent Stakes Effects on Water Lines

12.17.2 Solid Waste Setting [UT-1]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

A-MCCDA-07

- The solid waste setting section should be corrected to state that solid waste from the City of Sausalito and Angel Island is collected and transported to the Golden Bear Transfer Station, in Richmond, and then taken to a permitted landfill in Contra Costa County. Also, the setting and analysis should recognize that private boats can moor at Angel Island. [A-MCCDA-07]

Response UT-1

The commenter requests corrections to the description of transport and disposal of solid waste from the City of Sausalito and Angel Island State Park.

According to CalRecycle, the Redwood Sanitary Landfill was the primary receiving landfill for waste managed by the Marin County Hazardous and Solid Waste Management Authority in 2009 and 2010.[1] Bay Cities Refuse Service confirms that waste collected by the company is now transferred to Golden Bear Transfer Station, where it is then taken to a permitted landfill in Contra Costa County for disposal.[2] In response to this comment, the EIR text in Chapter 5, Section 5.12, Utilities and Service Systems, on page 5.12-8, last paragraph, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

---

[1] California Department of Resources Recycling and Recovery (CalRecycle), Disposal Reporting System, Jurisdiction Disposal by Facility, 2010, accessed September 15, 2011.

[2] Bay Cities Refuse Service, personal communication with ESA, September 15, 2011.

> The Authority sent 179,919 tons of solid waste to landfills in 2009, of which 130,350 tons went to the Redwood Sanitary Landfill at 8950 Redwood Road in Novato. About 50 percent of the material brought to the center is reused. ~~The facility is permitted to accept 1,290 tons per day of solid waste. As of 2000, the total estimated permitted capacity was 19,100,000 cubic yards, of which 67.5 percent (12,900,000 cubic yards) was remaining. The County recently approved an expansion of the landfill, along with new requirements to expand recycling, composting, and energy recovery. This would allow the landfill to continue to accept waste through about 2024.~~
>
> Bay Cities Refuse Service collects residential and commercial garbage, recycling, and yard waste from the City of Sausalito. Mill Valley Refuse Service collects residential and commercial garbage, recycling, and yard waste from Tiburon and Belvedere, as well as Mill Valley, Almonte, Alto, Corte Madera, Homestead, Strawberry, and surrounding unincorporated areas. Collected refuse is sorted at the Golden Bear Transfer Station in Richmond, and the remaining solid waste is sent to landfills in Contra Costa County. ~~sent to the Redwood Sanitary Landfill and Recycling Center~~.

In addition, the EIR text on page 5.12-9, last paragraph, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> Irrigation and potable water are supplied to Angel Island by state-owned and -maintained wells on the island. Solid waste is collected in a garbage packer on the island and transported via boat to the Golden Bear Transfer Station in Richmond ~~Redwood Landfill in Marin~~, described above.

In addition, the EIR text on page 5.12-24, fifth full paragraph, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> As stated in the Setting, above, the collected refuse from Marin County locations is sorted at the Golden Bear Transfer Station in Richmond, and the remaining solid waste is sent to landfills in Contra Costa County. ~~the Marin County Hazardous and Solid Waste Management Authority currently diverts more than 70 percent of generated solid waste from the Redwood Sanitary Landfill, and the landfill's expansion was recently approved to allow for continued disposal through 2024~~. The increased visitors to these Marin County locations would incrementally increase solid waste generation, but not to the extent that would exceed the capacity of local landfills~~the Redwood Sanitary Landfill~~.

These revisions do not change the analysis or conclusions presented in the EIR.

It is possible that private boats can moor at Angel Island. However, the demand on utilities and service systems resulting from such mooring would be a very small fraction of the demand created by ferry passengers, and therefore this would not require changes to the EIR analysis of utilities and service systems.

12.17.3 Condition of Existing Aquatic Park Restrooms [UT-2]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-SFPC-Anto-09	A-SFPC-Mig-06	I-Krolik-01

- The Aquatic Park restrooms are not currently operable or well-maintained. The restrooms must be fixed and maintained, especially because the America's Cup events would bring more people to Aquatic Park. Such repair and maintenance would improve Aquatic Park water quality, as well as public safety. [A-SFPC-Anto-09, A-SFPC-Mig-06, I-Krolik-01]

Response UT-2

Commenters state that the existing Aquatic Park restrooms are not currently operable or adequately maintained. Commenters state that the restrooms should be repaired and maintained to serve the spectators of the AC34 events, as well as ongoing users of the park.

The commenters' statements regarding the conditions of the existing Aquatic Park restroom facilities are acknowledged and will be forwarded to decision-makers. Maintenance of public restrooms is not considered a physical environmental effect on utilities under CEQA. The EIR determined that the proposed project would not exceed wastewater treatment requirements or result in the construction of new or expanded wastewater treatment facilities, and CEQA impacts related to wastewater services would be less than significant. However, as stated on EIR page 5.12-19, the EIR estimates that America's Cup events would generate about 886,940 gallons per day of additional wastewater citywide, which would presumably include increased usage at the Aquatic Park. As provided for in the Zero Waste Plan and described further in Response UT-3, below, the Event Authority would provide temporary, portable restroom facilities to accommodate the anticipated spectators and visitors at the primary venues, including Aquatic Park, to ensure adequate restroom facilities. Therefore, the project is not expected to result in the construction of additional permanent restroom facilities.

As indicated by a commenter, Aquatic Park restrooms are under the jurisdiction of the National Park Service (NPS), San Francisco Maritime National Historic Park (SAFR). Additional concerns related to maintenance of these particular restrooms can be addressed to the NPS.

Water quality impacts of the proposed project and associated public health issues are addressed in Chapter 5, Section 5.16, Hydrology and Water Quality. As described in that section, the project would result in less-than-significant impacts on water quality at Aquatic Park.

12.17.4 Provision of Landside Water, Wastewater, and Solid Waste Services During the AC34 Events (UT-3]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-156
A-NPS2-163
A-NPS2-170
A-NPS2-181
A-NPS2-188
A-NPS2-192
A-NPS2-204
A-NPS2-209
A-Tiburon-05
O-ACEC-268
O-ACEC-269
O-ACEC-271
O-ACEC-272

- The utilities analysis should include the impact of visitors to Alcatraz Island. [A-NPS2-170]
- Restroom capacity at many GGNRA spectator venues is insufficient for the anticipated number of visitors. Restroom capacity in secondary viewing areas—such as Tiburon—is also limited. The EIR should address this issue. [A-NPS2-156, A-NPS2-163, A-NPS2-181, A-NPS2-188, A-NPS2-192, A-NPS2-204, A-NPS2-209, A-Tiburon-05]
- The EIR fails to analyze utility and service system impacts on secondary viewing areas because it relies on a voluntary waste management plan, as well as a sustainability plan, neither of which are included in the EIR. There would be utility and service system impacts on surrounding neighborhoods, and the EIR should define how many spectators are likely to congregate in these secondary viewing areas. [O-ACEC-268]
- Solid waste hauling services and existing receptacles may not be sufficient to accommodate the increased solid waste generated by visitors. Mitigation measures should be identified to address refuse collection and to avoid litter affecting the Bay and park lands. The EIR should include an analysis of how much solid waste would be generated and identify specific control measures that are required for inclusion in the Waste Management Plan. [A-Tiburon-05, O-ACEC-269]
- The commenter states that the EIR should state other short-term events at secondary viewing areas are short-term in nature compared to AC34 events. [O-ACEC-271]
- Mitigation Measure RE-1 is not sufficient to ensure proper placement or supply of sanitation facilities and does not include City and Port properties. [O-ACEC-272]

Response UT-3

Commenters state that the EIR fails to quantify the number and location of sanitary facilities and trash receptacles that would be required to serve the spectators of the AC34 event. Commenters state that there are not enough facilities to serve the anticipated demand of America's Cup spectators and request provision of these facilities—portable restrooms, water services, and trash receptacles—as well as a detailed schedule of their maintenance.

CEQA Criteria

CEQA criteria for significance of impacts on wastewater utilities focus on overall wastewater treatment capacity and the need for new or expanded wastewater treatment facilities. The capacity of existing restrooms and the provision of adequate sanitation facilities for spectator events are not considered physical environmental effects on utilities under CEQA. Regarding wastewater services, as stated in Chapter 5, Section 5.12, page 5.12-17, the City generally considers that the implementation of a project could have a significant impact if it were to:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- Result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

As indicated in the analysis in Section 5.12, pages 5.12-18 to 5.12-21 under Impacts UT-1 and UT-2, as well as on page 5.12-23 under Impact UT-5, the AC34 events would not result in the construction of new wastewater treatment facilities or the expansion of existing facilities, and they would not result in a determination by the wastewater treatment provider that inadequate capacity exists to serve the project. Therefore, the EIR determined that the AC34 events would have a less-than-significant impact related to wastewater services.

However, as described in Chapter 11, the AC34 events would result in the construction of water and sewer connections at Piers 30–32 and Pier 80. These new connections would result in less-than-significant environmental impacts.

Also, as stated on page 5.12-22, portable wash stations would be provided at various locations to augment existing water fountains, and temporary increases in water demand caused by the AC34 events would not exceed existing capacities to the extent that new or expanded water supply resources or entitlements would be required.

Similarly, the provision of adequate trash receptacles is not considered a physical environmental effect on utilities under CEQA. Impacts on water quality that could result from littering or inadequate trash collection are discussed in Chapter 5, Sections 5.16, Hydrology and Water Quality, beginning on page 5.16-69. Impacts on biological resources that could result from littering or inadequate trash collection are discussed in Section 5.14, Biological Resources, as stated in the "approach to analysis" on page 5.14-27. As stated there, "indirect impacts would include the noise generated by spectators, their movement into and out of the spectator areas (on land or by boat), and their food trash and litter, which could affect resident wildlife by attracting disturbance-tolerant species."

Regarding solid waste impacts on utilities and service systems, as stated in Chapter 5, Section 5.12, page 5.12-17, the City generally considers that the implementation of a project could have a significant impact if it were to:

- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- Fail to comply with federal, state, and local statutes and regulations related to solid waste.

As discussed on pages 5.12-23 through 5.12-26, under Impacts UT-6 and UT-7, the AC34 events would be served by landfills with adequate capacity to accommodate the event's waste disposal needs, and the event would comply with statutes and regulations related to solid waste. Therefore, the EIR determined that the AC34 events would have a less-than-significant impact related to solid waste.

However, as part of the proposed project and described in Chapter 3, page 3-89, the project sponsors propose to implement a Zero Waste Plan. This plan is available for review on the website of the San Francisco Office of Economic and Workforce Development.[3] It includes estimates for quantities of construction and solid waste generation and actions for reducing solid waste and appropriate disposal.

Alcatraz Utilities Capacities

Comment A-NPS2-170 addresses utilities impacts from Alcatraz visitors. Water, wastewater, and solid waste services are described in Chapter 5, Section 5.12, Utilities and Service Systems, page 5.12-9. In response to the comment, page 5.12-19, third paragraph, is revised as follows to clarify the existing special event uses ongoing at Alcatraz (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> At Alcatraz, the project sponsor proposes to host private events within existing facilities that already serve events on the island. Private events are currently held at Alcatraz through a formal permitting and coordination process with the NPS. This permitting process and continued controlled access to the island, via ferry, would ensure that existing facilities have adequate utilities ~~are~~ to ~~provided for~~ support these private functions.

These revisions do not change the analysis or conclusions presented in the EIR. Because there would be controlled access to Alcatraz for AC34 visitors, the utility usage would be within the existing capacities of all utilities and services, and the project is not expected to affect the provision of these services.

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[3] San Francisco Office of Economic and Workforce Development, website: http://sfgov.org/site/frame.asp?u=http://www.oewd.org, accessed November 2, 2011.

Secondary Viewing Area Capacities

Regarding Comment O-ACEC-271, Chapter 5, Section 5.12, Utilities and Service Systems, references other spectator events in secondary viewing areas as evidence that these areas have been successfully planned to accommodate large crowds in the past. As stated on pages 5.12-19 and 5.12-20:

> These secondary viewing areas have shown their ability to accommodate large crowds with proper event planning. The annual Treasure Island Music Festival, held each autumn, has an attendance of about 25,000 visitors over 2 days. The City of Sausalito hosts the annual Sausalito Art Festival, which had an attendance of 34,000 people over a 3-day period in 2010.[4] Also, the Tiburon Wine Festival and Tiburon Art Festival annually attract crowds of visitors to the downtown and waterfront areas. The America's Cup five average peak race days would generate *comparable, or fewer,* visitors to these areas, as described in Chapter 3, Project Description. (emphasis added)

Contrary to the comment, the EIR does not state that these 2- and 3-day events have the same duration as the proposed AC34 events. The duration of the AC34 events is described in Chapter 3, Project Description, as extending over the course of several weeks. The EIR does not state that these short-term events would result in "equivalent" impacts to AC34 events. The EIR gauges the predicted attendance of "the America's Cup five average peak race days" against the attendance of these short-term events for the purpose of providing a conservative comparison of daily maximum demands for restrooms and solid waste/sanitation services. Chapter 3, Project Description, pages 3-37 and 3-39 (Tables 3-6 and 3-7) indicate that the 2013 events, alone, would occur over the course of 85 days with maximum attendance on the "five peak weekend race days." As shown, overall attendance, as well as attendance at secondary viewing areas, would be much lower on weekday peak race days and non-race days. Attendance would also be lower for the 2012 events. Demand for utilities would be commensurately lower on these alternative days. Therefore, non-peak day demand was not discussed because it would not have provided for the most conservative comparison and analysis of impacts on utilities. Even though AC34 would result in five peak race days, while other large events are generally 2 to 3 days, the impact on utilities and service systems would be comparable.

It should be noted CCSF has affirmative strategies to reduce or avoid environmental impacts, such as recycling and composting locations, added law enforcement, and spectator management measures at some secondary viewing locations.

Zero Waste Plan – Restrooms

The project sponsor has built upon the Zero Waste Plan to refine and detail specific waste management plans for the AC34 events, including the provision of sanitary waste facilities.

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[4] Sausalito Art Festival, "Welcome to the Sausalito Art Festival" website, http://www.sausalitoartfestival.org/festival_info.aspx?pid=16, accessed May 4, 2011.

According to the plan, there are about 125 restrooms available for public use along the northern and northeastern San Francisco waterfront, and the average walk time between these facilities is slightly more than 4 minutes. Both the Port of San Francisco and the Event Authority are interested in maintaining the aesthetic integrity of these facilities, and of the waterfront in general. Therefore, they have a preference for using restroom trailer facilities wherever possible.

Although restroom trailers could be connected to the existing combined sewer system, such connections would have to be made in street rights-of-way, which may not be feasible. Instead, facilities would be serviced so that demand at peak times could be met, and facilities in places with low demand would be serviced less frequently. They would be placed according to their requirements (i.e., ADA-accessible toilets would be placed at sidewalks) and in areas accessible to pump trucks.

According to the Zero Waste Plan, about 156 temporary toilets would be required in 2012, and 238 toilets would be required in 2013. As part of the facilities designed to attract spectators to the primary venues, the Event Authority would plan for the installation of temporary restroom facilities at both primary event sites and along passive event sites, or along transient routes.

12.17.5 Provision of Boat Wastewater Pump-Out Facilities [UT-4]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-MCL-02	O-RBACS-02

- The number, location, and distribution of pump-out facilities to serve AC34 spectator boats should be included in the EIR. The AC34 project sponsors should provide pump-out stations and additional officers to patrol for illegal discharges. [O-MCL-02, O-RBACS-02]

Response UT-4

The commenters state that adequate boat pump-out facilities are necessary to serve the spectators of the AC34 events and that the project sponsor should ensure adequate facilities are provided in places where they are lacking.

Draft EIR Analysis

The provision of adequate boat pump-out facilities is only considered an environmental impact under CEQA to the extent that it results in a physical environmental effect. As stated in Response UT-3, under CEQA, proposed projects can result in physical wastewater impacts on utilities and service systems if they:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;

- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- Result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

As stated in Section 5.12 of the EIR, wastewater generated by the AC34 events would not exceed the wastewater treatment requirements of the RWQCB or otherwise exceed the capacity of the applicable treatment plants. The EIR determined that project impacts related to wastewater facilities would be less than significant because the proposed races would occur during the dry season, when the combined sewer system of San Francisco as well as the systems in Marin County have adequate capacity to accommodate the increased wastewater flows. Please see Chapter 5, Section 5.16, Impact HY-1 beginning on page 5.16-59, for a discussion of the proposed projects' impacts on water quality, including water quality impacts related to increased boat pump-out demand.

Additionally, based on estimations of the number of boats from previous Fleet Weeks in San Francisco, as well as from the 32nd and 33rd America's Cup events, the analysis of requirements for pump-out facilities assumes that 90 percent of spectator boats would be local spectator boats originating from San Francisco or San Pablo Bay. The potential for the increased vessels associated with the AC34 project that would be mooring in the Bay to result in inadequate pump-out facilities that could result in potential water quality impacts is discussed in Chapter 5, Section 5.16, as well as Chapter 12, Section 12.22. As described in Section 5.16, Impact HY-1, pages 5.16-67 to 5.16-68, the increased vessel traffic expected to visit and moor in San Francisco Bay during the AC34 events could result in potentially significant impacts on water quality due to the increased potential for boat discharges, including sewage discharges that could result from inadequate pump-out facilities. Although the project sponsors estimate that during peak race days there could be as many as 880 spectator boats viewing the races (as refined in the AC34 Project Variant in Chapter 11), the large majority of these spectator vessels are expected to originate from within the Bay Area, so provisions for pump-out facilities for these boats would be considered part of the existing conditions. To address the potential water quality impacts associated with the incremental increase in boating activities that would occur over the course of AC34 races in 2012 and 2013, the EIR identifies Mitigation Measure M-BI-12, Visiting Mariners Information, pages 5.14-100 to 5.14-103, which would require the project sponsors to develop and disseminate information to visiting boaters prior to or upon arrival to San Francisco Bay for the AC34 events; this information would include instruction on environmentally sound boating practices and locations of environmental services to ensure clean boating practices, ensuring proper and legal waste and sewage handling from vessels. Implementation of this measure would reduce the water quality impact to a less-than-significant level.

Zero Waste Plan – Boat Pump-Out Facilities

The City has refined the Zero Waste Plan (also known as the Waste Management Plan). As stated in the Zero Waste Plan, 38 marinas have sewage pump-out systems in the Bay, and approximately ten marinas are expected to experience abnormal variance in their sewage pump-out usage due to their proximity to the event. Capacity of the Bay Area pump-out systems could be strained at some locations due to the large number of visiting boaters. The potential crowding resulting from increased use may deter many boaters from using the pump-out systems, leading to increased sewage discharge. In addition, there would be many large yachts (over 100 feet) that would not be able to use a majority of these pump-out systems. To alleviate these effects, Mitigation Measure M-BI-12 includes a Notice to Boaters that would include a map to show bilge and sewage water pump-outs, thereby diverting pump-out demand to the approximately 28 facilities with additional capacity. The provisions of the Water and Air Traffic Plan also include direction of boaters to available pump-out facilities.

12.17.6 Future Long-Term Development Utilities and Service Systems Impacts [UT-5]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-270 O-ACEC-273

- The EIR incorrectly states that water supply is adequate to meet water demands of the long-term development scenario. Pursuant to Senate Bill 610, either a Water Supply Assessment must be prepared to analyze the long-term development scenario, or the Planning Department must show that the specific project was provided to the SFPUC for inclusion in the current Urban Water Management Plan. Long-term supplies cannot be confirmed for the proposed project, as the SFPUC is projecting a shortfall between 10 and 19.7 million gallons per day in its service area by 2035. [O-ACEC-270]
- The EIR incorrectly states that the additional 132,600 gallons per day of wastewater generated by the long-term development scenario would result in a less-than-significant impact. Redevelopment would not reduce stormwater flows, and the SFPUC's Sewer System Improvement Program would not mitigate increased wastewater and stormwater flows generated by long-term development. Inclusion of the Sewer System Improvement Program is not appropriate because the plan is in draft form. The EIR fails to identify problems associated with combined sewer overflows during wet weather events, including high bacteria counts and deposition of heavy metals. Finally, the EIR fails to distinguish between new development on piers, where stormwater would not be directed into the combined sewer system, and development on Seawall Lot 330, where stormwater would be directed into the combined sewer system. [O-ACEC-273]

Response UT-6

The commenters disagree with the EIR's determination that the impact of the proposed project's future long-term development on water supply, wastewater treatment capacity, and storm drainage facilities would be less than significant.

As stated on EIR page 5.1-11 and elaborated in Section 12.6, Impact Overview, Response IO-5, the EIR analyzes the potential impacts of the proposed project's future long-term development rights under the Host Agreement at a conceptual level because no specific proposal is currently defined. When site-specific development proposals are available, those proposals will be subject to project-specific CEQA review, and impact determinations will be reevaluated to determine project-specific impact analysis at that time.

Water

The commenter states that it is unclear whether there would be adequate water supply to meet the demands of the future long-term development. The commenter requests preparation of a Water Supply Assessment for the proposed project.

As stated above, the future long-term development scenario is analyzed at a conceptual level. If and when site-specific development proposals are put forth, the project would be subject to project-specific environmental review. If, at that time, the Planning Department and the San Francisco Public Utilities Commission (SFPUC) determine that the proposed project meets the threshold of Senate Bill 610 (i.e. a 500-unit or more residential development or its equivalent water demand), then a Water Supply Assessment may be required. If a Water Supply Assessment is required, it may rely on the applicable Urban Water Management Plan if the long-term development project was included in the Urban Water Management Plan projections.

However, given the conceptual future long-term development scenario presented for analysis in the EIR, it is not possible at this time to query the SFPUC or the *2010 Urban Water Management Plan* to meet the commenter's request to show that a specific project at a specific size was included in the water supply projections. Instead, pursuant to the conceptual approach, the future long-term development scenario was based on existing land use designations, which were then incorporated into City and County of San Francisco and Association of Bay Area Governments (ABAG) population and employment projections. These projections are used in the development of the SFPUC demand model, as stated in Chapter 5, Section 5.12, Utilities and Service Systems, page 5.12-2. As indicated in the EIR, the SFPUC has adequate water supply to meet projected in-City demand during wet and average rainfall years but would impose a Water Shortage Allocation Plan under a multiple dry year event. Furthermore, in-City water demand associated with residential demand—such as demand that would be generated on Seawall Lot 300 under the future long-term development scenario—has gradually decreased due to use of more water-efficient fixtures in accordance with the Green Building Code and the Port Building Code. Such new fixtures would be included in projects on the future long-term development sites consistent with regulations in place at that time.

Given (1) the SFPUC's method of projecting demand by incorporating the existing land use designations of the future long-term development sites, (2) the existing uses on those sites that could continue their water demands under portions of long-term development rights, (3) the SFPUC's capacity to meet in-City demand during wet and average rainfall years, (4) the SFPUC's plan for water supply allocation during multiple dry year events, and (5) the conceptual level of analysis of the future long-term development scenario in the EIR, the impact on water supply associated with future long-term development under the Host Agreement is found to be less than significant. Any proposed project pursuant to the long-term development scenario would be subject to project-specific environmental review, at which time the significance determination and the demand would be reevaluated.

Combined Sewer System and Wastewater Treatment Capacity

Impacts of Combined Sewer Overflows

Regarding general problems of combined sewer overflows, as described in the EIR, Chapter 5, Section 5.16, Hydrology and Water Quality, page 5.16-17, combined sewer overflows introduce pollutants into Central San Francisco Bay, which the RWQCB lists as an impaired water body. As noted on page 5.16-17, pollutants listed "include chlordane, dichlorodiphenyltrichloroethane (DDT), dieldrin, dioxin compounds, exotic species, furan compounds, mercury, polychlorinated biphenyls (PCBs), and selenium." Therefore, the EIR adequately identifies the existing conditions and water quality issues associated with combined sewer overflows.

Seawall Lot 330

Regarding existing stormwater systems, the Draft EIR incorrectly states on page 5.12-4 that all of the America's Cup and cruise terminal project sites fall within the Port of San Francisco's separate storm water system (MS4). In response to this comment, the EIR text on page 5.12-4, middle of the last paragraph, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> Most of the Port properties—including all of the America's Cup and cruise terminal project sites, except Seawall Lot 330—are served by one MS4. Seawall Lot 330 is served by the City's combined sewer systems.

In addition, the EIR text on page 5.12-31, beginning of the first paragraph, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> Most of the sites—except Seawall Lot 330—are within the Port jurisdiction MS4, which allows stormwater to drain directly into the Bay and bypass the combined sewer system. Seawall Lot 330 is served by the City's combined sewer systems.

These revisions do not change the analysis or conclusions presented in the EIR.

Wastewater Generation

Regarding wastewater, the EIR found that the future long-term development could generate an additional 132,600 gallons per day (gpd) of wastewater based on the conceptual development scenario described in Chapter 3, Section 3.4.8, pages 3-90 to 3-91. At the conceptual level at which the future long-term development is analyzed in the EIR, this increased wastewater generation would not exceed the wastewater treatment requirements of the Southeast Water Pollution Control Plant (SEWPCP). The SEWPCP currently has an average dry weather flow of 63 million gallons per day (mgd) and a treatment capacity of 110 mgd to secondary standards. The additional 132,600 gpd generated by long-term development would represent about one-tenth of 1 percent (0.12 percent) of the average dry weather flow design capacity. Similarly, the 132,600 gpd of wastewater would represent an even smaller fraction of the wet weather flow capacity of the sewer system's eastern basin, which includes (1) the SEWPCP's design capacity of 150 mgd of wet weather flow to secondary standards, (2) the SEWPCP's design capacity of 100 mgd to primary standards, (3) the North Point Wet Weather Facility's design capacity of 100 mgd to primary standards, and (4) the capacity of storage boxes located beneath The Embarcadero and beneath roadways adjacent to China Basin. This insignificant increase in flow is not expected to affect the frequency or duration of combined sewer overflow events. Therefore, the additional wastewater generated by the proposed project, under the conceptual analysis of the future long-term development, would result in a less-than-significant impact on wastewater treatment capacity.

Stormwater Generation

Redevelopment of all of sites remaining under Port jurisdiction would be required to meet the Port of San Francisco Building Code, which requires commercial projects to achieve LEED® Silver certification, which can be partially met by reducing stormwater runoff and increasing the presence of pervious surfaces. If any sites are removed from Port jurisdiction, they would be required to meet the San Francisco Water Efficient Landscaping Ordinance, the San Francisco Green Landscaping Ordinance, and the San Francisco Building Code, as applicable. These codes encourage or require a reduction in stormwater flows.

Given that all of the sites currently comprise almost entirely paved surfaces, these sites are currently generating close to the maximum amount of stormwater flows that they can produce during rain events. Moreover, only Seawall Lot 330 is connected to the City's combined sewer system, which directs stormwater flows to the wastewater treatment plants described above. All other long-term development sites are within the Port's MS4, which directs stormwater flows directly to San Francisco Bay. Stormwater flows from these sites are not, and would not, be processed at wastewater treatment plants. Therefore, development under the future long-term development scenario could not increase stormwater flows to the extent that would substantially increase wet weather flows into the combined sewer system or exceed the system's wastewater treatment requirements. The impact would be less than significant.

Sewer System Improvement Program

As stated in Chapter 5, Section 5.12, Utilities and Service Systems, page 5.12-31, the SFPUC is in the process of implementing a Sewer System Improvement Program (SSIP). Given the conceptual level of analysis of the proposed project's future long-term development scenario, the EIR discusses the SSIP at a conceptual level. Specific programs and construction projects of the SSIP are not included in the analysis. As stated above, any specific project proposal arising from the future long-term development rights under the Host Agreement would be subject to project-level environmental review if and when specific development proposals are submitted in the future, and the project would be appropriately analyzed relative to the status of the SSIP at that time.

Stormwater Drainage Facility Impacts

Finally, as stated in Chapter 5, Section 5.12, Utilities and Service Systems, page 5.12-17, proposed projects could have a potentially significant impact related to stormwater drainage if they would "require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects." The impacts of construction of new stormwater drainage facilities would include traffic, noise, air pollutant emissions, and other impacts discussed under the analysis of the construction of the future long-term development scenario throughout this document. The construction or expansion of stormwater drainage facilities, if any, would likely represent a small fraction of the total construction of any given development proposal. Therefore, impacts associated with the construction of these drainage facilities associated with long-term development, if any, were determined to be less than significant on a conceptual level, but as stated above, any future development will be subject to project-level CEQA review.

12.17.7 Tent Stakes Effects on Water Lines [UT-6]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

A-NPS2-180

- On Crissy Field and other areas, staking (such as for tents) may pierce water lines. Surveys must be completed to prevent such occurrences. [A-NPS2-180]

Response UT-6

The commenter states a concern about the potential for preparations for the AC34 events to damage existing water lines. The EIR does not identify a significant effect related to damage to water lines, and as such, a survey such as the one suggested by the commenter would not be required as a mitigation measure under CEQA. However, specific siting of facilities at Crissy Field would be conducted in conjunction with NPS personnel to avoid conflicts with existing known facilities, including utilities such as water lines. In addition, construction contractors typically employ precautions to avoid damage to utilities to minimize the likelihood of such occurrences. Nevertheless, implementation of the Parks Event Operations Plan would address post-event restoration to ensure that the site would be returned to its present condition.

12.18 Public Services

12.18.1 Overview of Comments on Public Services

The comments and corresponding responses in this section cover topics in Chapter 5, Section 5.13, of the EIR. These include topics related to:

- PS-1, Public Services Setting
- PS-2, Regulatory Framework
- PS-3, Public Services Significance Criteria and Approach to Analysis
- PS-4, Public Services Impact Analysis
- PS-5, Public Safety Plan and Parks Event Operations Plan
- PS-6, Public Services Cumulative Impacts

12.18.2 Public Services Setting [PS-1]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

A-MCCDA-08

- The EIR does not include the Marin County Sheriff's Office as a law enforcement agency with jurisdiction within the project area. [A-MCCDA-08]
- The EIR does not list the Marin County Sheriff's Office, Sausalito Police Department, Southern Marin Fire Protection District, or Tiburon Fire Protection District on the list of public service providers that provide emergency medical services for visitors on boats and fire protection services for visitors on boats. [A-MCCDA-08]

Response PS-1

In response to this comment, the EIR text in Chapter 5, Section 5.13, Public Services, page 5.13-9, Table 5.13-2 has been revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

TABLE 5.13-2 [REVISED]
LAW ENFORCEMENT SERVICES IN THE PROJECT AREA

Project Site	Agency	Closest Station to the Project Site
Pier 80	SFPD	Bayview District
Piers 30-32	SFPD	Southern District
Brannan Street Wharf Open Water Basin	USCG	Yerba Buena Island
Seawall Lot 330	SFPD	Southern District
Piers 26 and 28	SFPD	Southern District
Rincon Point Open Water Basin	USCG	Southern District
Piers 19 and 19½	SFPD	Central District
Pier 23	SFPD	Central District

TABLE 5.13-2 [REVISED] (Continued)
LAW ENFORCEMENT SERVICES IN THE PROJECT AREA

Project Site	Agency	Closest Station to the Project Site
Piers 27-29	SFPD	Central District
Aquatic Park	USPP	Fort Mason Station
	NPS	Presidio Station
	SFPD	Central District
Fort Mason	USPP	Fort Mason Station
	NPS	Presidio Station
	SFPD	Northern District
Marina Green	SFPD	Northern District
Crissy Field	USPP	Presidio Station
	NPS	Presidio Station
Cavallo Point	NPS	Fort Baker Station
	MCS	Southern Sub-Station
Justin Herman Plaza	SFPD	Central District
Union Square	SFPD	Central District
Civic Center	SFPD	Northern District
Alcatraz	NPS	Alcatraz
Presidio and south side of Golden Gate Bridge	USPP	Presidio Station
	NPS	Presidio Station
Fisherman's Wharf	SFPD	Central District
NE Embarcadero (Pier 42 to Fisherman's Wharf)	SFPD	Southern and Central Districts
Marin Headlands	NPS	Fort Baker Station
	MCS	Southern Sub-Station
Sausalito	SPD	Sausalito Station
	MCS	Southern Sub-Station
Belvedere	BPD	Belvedere Station
	MCS	Southern Sub-Station
Tiburon	TBP	Tiburon Station
	MCS	Southern Sub-Station
Treasure Island	SFPD	Southern District
Angel Island	CSPR	Angel Island
San Francisco Bay	USCG	Yerba Buena Island
	MCS	Southern Sub-Station

NOTES:
SFPD = San Francisco Police Department
USCG = United States Coast Guard
USPP = United States Park Police
NPS = National Park Service (law enforcement rangers)
CHP = California Highway Patrol
SPD = Sausalito Police Department
BPD = Belvedere Police Department
TPD = Tiburon Police Department
CSPR = California State Park Rangers
MCS = Marin County Sheriff

SOURCE: DOEM, 2011

In response to this comment, the last paragraph on page 5.13-17 has been revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> The AC34 2012 and AC34 2013 events would attract large numbers of spectators aboard private and commercial vessels on San Francisco Bay, with an estimated average weekend peak during the 2013 races of 18,000 spectators on boats (see Chapter 3). In addition, AC34 would involve numerous AC72 racing yachts and team support vessels, and a barge helipad would be stationed in the Bay to support media operations. The temporary increase in vessel traffic and uses on the Bay would result in increased demand for emergency medical services for vessels on the Bay. Emergency medical services for vessels in Central San Francisco Bay are provided by the USCG on Yerba Buena Island, SFFD operating from Station 35 at Pier 22½ (see Figure 5.13-1), SFPD Marine Unit, Marin County Sheriff's Office, Sausalito Police Department, Southern Marin Fire Protection District, and Tiburon Fire Protection District. The anticipated increase in demand for emergency medical service for boaters on the Bay during the AC34 2012 and AC34 2013 events would be similar to levels needed during peak days under other major events (i.e., Fleet Week). The increase in demand would be met using existing facilities, and no new or physically altered facilities would be constructed. Therefore, maintaining acceptable emergency medical service for spectator boats during the AC34 2012 and AC34 2013 events would have *no impact.*

In response to this comment, the first full paragraph on page 5.13-19 has been revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> ***Fire Protection Services for Visitors on Boats.*** The AC34 2012 and AC34 2013 events would attract large numbers of spectators aboard private and commercial vessels on San Francisco Bay, with an estimated average weekend peak of 18,000 spectators on boats during the 2013 races (see Chapter 3). In addition, AC34 would involve numerous AC72 racing yachts and team support vessels, and a barge helipad would be stationed in the Bay to support media operations. The temporary increase in vessel traffic and uses on the Bay would result in increased demand for emergency response services for vessel fires and boating accidents. Emergency response services for vessels in Central San Francisco Bay are provided by the USCG on Yerba Buena Island and the SFFD operating from Station 35 at Pier 22½, (see Figure 5.13-1), Marin County Sheriff's Office, Sausalito Police Department, Southern Marin Fire Protection District, and Tiburon Fire Protection District. The anticipated increase in demand for fire protection services for boaters on the Bay during the AC34 2012 and AC34 2013 events would be similar to levels needed during peak days under existing conditions. The increase in demand would be met using existing facilities, and no new or physically altered facilities would be constructed. Therefore, maintaining acceptable fire protection services for spectator boats during the AC34 2012 and AC34 2013 events would have *no impact.*

These revisions do not change the analysis or conclusions presented in the EIR.

12.18.3 Regulatory Framework [PS-2]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

A-MCCDA-08

- The Draft EIR should address the AC34 project's consistency with the Marin Countywide Plan Socioeconomic Element, Public Safety; the Natural Systems and Agriculture Element, Environmental Hazards; and the Built Environmental Element, Public Facilities and Services. [A-MCCDA-08]

Response PS-2

In response to this comment, the following text has been inserted into the EIR on page 5.13-13 (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> ***Marin Countywide Plan***
>
> The *Marin Countywide Plan* guides the conservation and development of Marin County. The Socioeconomic Element, Natural Systems and Agriculture Element, and Built Environment Element contain goals, policies, and programs relevant to the AC34 project, although most of the policies of these elements are not applicable to either (1) increased demand on public services related to special events, or (2) CEQA analysis.
>
> The Socioeconomic Element of the *Marin Countywide Plan* focuses on the people of Marin County and seeks to reinforce the complex connections among individual well-being, economic prosperity, community involvement, cultural richness, and the environment. The following implementing program of the *Marin Countywide Plan* Socioeconomic Element is relevant to the AC34 project:
>
> > *PS-3.b Maintain Adequate Response Resources.* Identify the need for and maintain adequate staffing levels, equipment, and resources, and undertake disaster preparedness training as necessary to provide essential emergency public services.
>
> The following policies and implementing program of the *Marin Countywide Plan* Natural Systems and Agriculture Element are relevant to the proposed project:
>
> > *EH-2.1 Reliability of Lifelines and Access (Evacuation) Routes.* In cooperation with utility system providers, emergency management agencies, and others, assist in the development of strategies to reduce adverse effects of geologic hazards, especially fault surface rupture and landslides to critical public lifelines, and access (i.e., evacuation) routes in an emergency.
> >
> > *EH-4.4 Ensure Adequate Emergency Response.* Ensure that there is an adequate number of trained and certified emergency medical technicians to address the increase in medical demand.

> *EH-4.p Provide Paramedics as Needed.* Assess the adequacy and number of firefighters trained as emergency medical technicians, and train more paramedics or firefighters, as needed.

The following implementing program of the *Marin Countywide Plan* Built Environment Element is relevant to the proposed project:

> *PFS-1.d Reduce Demand on Public Facilities.* Assess and revise community development and facilities rules to incorporate least-cost (including environmental, economic, and societal costs) and integrated resources planning for water, wastewater, and storm water infrastructure.

These revisions do not change the analysis or conclusions presented in the EIR.

12.18.4 Public Services Significance Criteria and Approach to Analysis [PS-3]

This response addresses all or part of the following comments:

A-NPS2-34
A-NPS2-98
A-Tiburon-03
A-Sausalito-10
O-WW-40

- The commenter disagrees with the significance thresholds for public services in the Draft EIR. The commenter states that the project would result in a significant impact if adequate public services were not provided for the AC34 project. [A-NPS2-34]
- The commenter states that the Draft EIR should revise the significance criteria to include public service impacts from the ability of NPS to protect physical resources due to increased demand for public safety services. [A-NPS2-98]
- The Town of Tiburon disagrees with the thresholds of significance for public services. The commenter requests that the EIR analyze the impacts on public service levels from AC34 events. [A-Tiburon-03]
- The commenter states the Draft EIR does not address the public services impacts from increased visitation to the City of Sausalito from AC34 events. The commenter states the Final EIR should address staffing levels impacts on the City of Sausalito Police Department and the Southern Marin Fire Protection District from AC34 events. [A-Sausalito-10]
- The commenter disagrees with the significance thresholds for cumulative public service impacts in the Draft EIR. The commenter states that the Draft EIR does not consider the impacts from increased demand on public services. [O-WW-40]

Response PS-3

As described in the EIR, Chapter 5.13-15, Section 5.13.3.1, Significance Criteria, the Draft EIR evaluates the potential public service impacts that could result from substantial adverse impacts associated with the provision of or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any public services such as fire protection, law enforcement, schools, parks, or other services. This significance criterion is consistent with the CEQA Guidelines Appendix G, Environmental Checklist Form. Consistent with the CEQA Guidelines, the Draft EIR analyzes whether the proposed project would require construction of new or altered public service facilities, and then the analysis evaluates whether construction of such facilities would have a substantial adverse physical impact on the environment. For example, if the San Francisco Police Department (SFPD) determined that a new police station would be required to be constructed to maintain adequate service levels for law enforcement during the AC34 events, the impact analysis would evaluate whether construction or operation of the new police station would have significant impacts on the physical environment, such as transportation, circulation, or noise conditions. The Draft EIR finds that the proposed AC34 project would result in temporary increased demand for public services, including emergency medical services, fire protection, and law enforcement. However, the temporary increases in demand for fire protection and law enforcement would not require the construction of new or physically altered public service facilities. In addition, the construction of temporary emergency medical facilities was determined to result in a less-than-significant impact.

As described in the Draft EIR, Section 5.13.3.2, Significance Determinations, economic or social effects related to an increase in demand for public services or changes to public service levels would not be considered environmental impacts under CEQA or require mitigation unless related to a significant impact on the physical environment. An increased demand for law enforcement, fire protection, and emergency medical services could have economic impacts that are unrelated to the construction of new or altered facilities. For example, the National Park Service may incur costs related to providing additional park rangers during the AC34 races and events. However, as discussed above, economic and social effects absent a physical change to the environment are not considered environmental impacts under CEQA. Thus, costs incurred by the agencies that would provide law enforcement, fire protection, and emergency medical services during AC34 would not be considered an environmental impact under CEQA, and the EIR does not include mitigation measures to compensate public service agencies for such costs. Although economic costs incurred for law enforcement, fire protection, and emergency medical services for AC34 are not required to be mitigated in accordance with CEQA, these costs would be addressed in the Public Safety Plan and the Parks Event Operations Plan. As stated in Response GE-2, for funding or financial assistance for measures or actions not identified in the EIR, the project sponsors are coordinating with numerous agencies and interested organizations. The outcome of these coordination efforts is outside the purview of CEQA.

The Public Safety Plan would address all reasonable safety and security measures (including emergency and rescue services) to protect the public, media, event-related staff, and competitors during AC34 events. The Public Safety Plan would include specific measures to ensure a high level of security within and around all elements of the event venues and within and around sensitive locations such as airports, rail, BART, and metro and bus stations.

The Parks Event Operations Plan would be prepared in consultation with the NPS, California Department of Parks and Recreation, Presidio Trust, and SFRPD and focus on the onshore spectator venue sites. The Parks Event Operations Plan would address crowd management, public safety, and visitor comfort. In the Parks Event Operations Plan, the roles and responsibilities of implementing entities would be clearly described to ensure adequate public safety levels for the NPS, California Department of Parks and Recreation, Presidio Trust, and SFRPD properties during AC34 events.

The Public Safety Plan and Parks Event Operations Plan would address requirements for increased public services and protection of physical resources that are outside the scope of what is required to be analyzed in the Draft EIR. The Draft EIR also includes mitigation measures for the protection of biological and cultural resources from the increased crowding from AC34 events. Additionally, please see Section 12.18.6, Public Safety and Parks Event Operations Plan, for further discussion of these issues.

12.18.5 Public Services Impact Analysis [PS-4]

This response addresses all or part of the following comments:

A-NPS2-153
A-NPS2-155
A-NPS2-171
A-NPS2-181
A-NPS2-190
A-NPS2-198
A-NPS2-205
A-NPS2-210
I-Whitaker-05

- The commenter states that the Draft EIR should address how law enforcement and emergency access would be maintained during AC34 events at Fort Mason, Crissy Field, Coastal Trail, Battery East, Fort Point, Alcatraz, Fort Baker, Marin Headlands, and SAFR. The commenter also states that the Draft EIR should address crowding and capacities at park sites, as well as include mitigation measures to ensure visitor safety. [A-NPS2-153, A-NPS2-155, A-NPS2-171, A-NPS2-181, A-NPS2-190, A-NPS2-198, A-NPS2-205, A-NPS2-210]
- The commenter states that public safety is not adequately addressed in the Draft EIR. The commenter states that the San Francisco Police Department is understaffed and congestion from AC34 would block emergency response access. [I-Whitaker-05]

Response PS-4

As discussed in Section 12.18.4, the EIR evaluated the potential impacts associated with the provision of or the need for new or physically altered governmental facilities. The EIR acknowledges that the AC34 project could generate increased demand for public services, including emergency medical, fire protection, and law enforcement services; however, the economic or social impacts related to the increased demand for public services would not be considered impacts under CEQA and would not require mitigation measures.

As described in the EIR, Chapter 5.13, Section 5.13.3.3, based on the average peak race weekend day visitation estimates of 334,000 spectators viewing AC34 events, the increase in demand for emergency medical services and law enforcement on peak days at the major spectator areas would be substantial. This increase in demand for law enforcement and emergency medical services would affect all law enforcement services, fire departments, and emergency medical services within the project area, including United States Park Police and the National Park Service law enforcement rangers. However, although the AC34 events would generate a substantial increase in demand for emergency medical services and law enforcement, the increase would be limited in duration because AC34 would be a temporary event, and it would be similar to the increased demand from other major events, such as Fleet Week.

Demand for emergency medical services would be highest on the five average peak race days occurring in 2013 and four average peak race days occurring in 2012, and higher than normal on non-peak race days. This demand would primarily be met through existing emergency medical facilities. In addition to fire protection/emergency medical service and police department stations listed in Table 5.13-1 and Table 5.13-2 of the Draft EIR, other stations and fire protection agencies would provide assistance if needed through mutual aid agreements among the region's many fire protection agencies.

As such, the existing emergency medical services facilities in the affected areas—along with temporary facilities erected for the event—would be adequate to meet the temporary increase in demand during the AC34 events. Additionally, as discussed in Section 12.18.6, the Public Safety Plan and the Parks Event Operations Plan would provide more detailed law enforcement and emergency medical service plans for AC34 beyond what is required for CEQA analysis of public service impacts. The Public Safety Plan would address all reasonable safety and security measures (including emergency and rescue services) to protect the public, media, event-related staff, and competitors during AC34 events. The Parks Event Operations Plan would address crowd management, public safety, and visitor comfort. These plans would further address the commenters' concerns about maintenance of law enforcement and emergency access, as well as crowding and capacities at park sites during AC34 events. The commenters' concerns about SFPD staffing levels are outside the scope of the EIR, and no further response is required.

12.18.6 Public Safety Plan and Parks Event Operations Plan [PS-5]

This response addresses all or part of the following comments:

A-NPS2-181
A-NPS2-190
A-NPS2-98
A-MBOS-06
A-MBOS-07
A-MCCDA-08
A-Belvedere-05
O-GGNPC2-04
O-Explor-05
O-Explor-10

- The EIR should include mitigation measures for additional law enforcement services within National Park Service (NPS) lands during AC34 events. [A-NPS2-98]

- The Draft EIR should address crowd and public service capacity at Crissy Field and appropriate mitigation measures should be identified. [A-NPS2-181]

- The NPS would require additional law enforcement during AC34 events, and overlapping events at Fort Mason, lower Fort Mason, Fort Point, and Crissy Field. [A-NPS2-190]

- The AC34 project would create an increased demand for public services for the Richardson's Bay Regional Agency from increased boat use. [A-MBOS-06]

- A coordinated Marin Operational Area (OA) response would be essential for ensuring adequate public services for the AC34 project. The commenter requests that the Marin County Sheriff's Office of Emergency Services (OES) be funded to organize the OA for AC34 events. [A-MBOS-07]
- The marine resources from Marin County public service agencies would likely be used during waterborne medical emergencies during AC34 events. The commenter provides recommendations for staffing levels for Marin County Sheriff's Office marine patrol and regular patrol for AC34. [A-MCCDA-08]
- The commenter requests additional mitigation measures for the City of Belvedere and the Tiburon Peninsula to address the increased demand for emergency responders on land and water from AC34 events. [A-Belvedere-05]
- The AC34 activities, combined with Exploratorium attendance, would require coordinated security and crowd control. Unique needs of visitors of all kinds must be considered. [O-Explor-05, O-Explor-10]
- There should be adequate staffing of NPS Park Police and NPS rangers during AC34 events to avoid impacts on biological and cultural resources at Crissy Field. [O-GGNPC2-04]

Response PS-5

The commenters state a variety of requests for increased public services and coordination with local jurisdictions for AC34 events. The commenters request additional law enforcement and emergency medical services for the NPS, Marin County, City of Belvedere, Tiburon Peninsula, and Richardson's Bay Regional Agency during AC34 events.

As discussed in Section 12.18.4 above, the EIR evaluates the potential impacts associated with the provision of or the need for new or physically altered governmental facilities. The EIR acknowledges that additional public services costs would be incurred by the agencies that would provide law enforcement, fire protection, and emergency medical services during AC34; however, these additional costs would not be considered an environmental impact in accordance with CEQA, and the EIR does not include mitigation measures to compensate public service agencies for such costs or the requirements for increased public services demand.

The EIR states that public service requirements, including ensuring adequate staffing levels and adequate public services throughout the project area, would be further addressed in the Public Safety Plan and the Parks Event Operations Plan. The comments received on the EIR that pertain to the preparation and implementation of the Public Safety Plan and the Parks Event Operations Plan will be forwarded to the decision-makers and the parties responsible for the preparation and implementation of these plans. The Public Safety Plan would be prepared in consultation with the local public service agencies located within the AC34 project area, inclusive of publicly accessible piers and aprons. Please also see Response PD-7, which explains that the AC34 implementation plans are distinguishable and separate from CEQA mitigation measures.

12.18.7 Public Services Cumulative Impacts [PS-6]

This response addresses all or part of the following comment:

O-WW-40

- The Draft EIR does not adequately address public service cumulative impacts. [O-WW-40]

Response PS-6

The commenter states that the Draft EIR does not adequately analyze near-term cumulative impacts during 2012 and 2013.

As described in the EIR, Section 5.13, Public Services, Section 5.13.3.5, pages 5.13-27 and 5.13-28, the EIR analyzes cumulative public service impacts associated with AC34. The cumulative impact analysis considers whether (1) an increase in demand would make a cumulatively considerable contribution to the public service demands of other past, present, and future projects within the affected areas that, in combination, would require the construction of new or physically altered governmental facilities (i.e., fire or police stations); and (2) the construction of such facilities would have a significant adverse impact on the environment. The geographic scope of the cumulative public service impacts analyzed in the Draft EIR is the areas served by the fire and police stations and other facilities of federal, state, and local government agencies that provide fire protection, emergency medical, and law enforcement services in the areas affected by AC34 (see Figures 5.13-1, 5.13-2. 5.13-3, and 5.13-4 and Tables 5.13-1 and 5.13-2 in the Draft EIR).

As stated above, AC34 would temporarily increase demand for fire protection, emergency medical, and law enforcement services during summer-fall 2012 and summer-fall 2013. Because they would be short-term and temporary (limited to several months in 2012 and 2013), the public service demands of AC34 would not be considered in the capital improvements plans for future construction of any new or physically altered facilities of any of the fire protection, emergency medical, or law enforcement agencies that would provide services for the proposed AC34 facilities or events. Therefore, the AC34 facilities and events would not contribute to any cumulative impacts on the environment related to public services. Additionally, as described in Section 12.8.4 above, the Draft EIR need not consider social or economic impacts from the temporary increase in demand for public services.

12.19 Biological Resources, Upland [BIU]

12.19.1 Overview of Comments on Biological Resources, Upland

The comments and corresponding responses in this section cover topics in Chapter 5, Sections 5.14.1 through 5.14.3, Biological Resources, Upland, of the EIR. These include topics related to:

- BIU-1, General Upland Biological Resources Issues
- BIU-2, Upland Biological Resources Setting
- BIU-3, Upland Biological Resources Regulatory Framework
- BIU-4, Upland Biological Resources Impacts
- BIU-5, Upland Biological Resources Mitigation
    - BIU-5a, General Mitigation
    - BIU-5b, Buffers as Mitigation
- BIU-6, Upland Biological Resources Cumulative Impacts

Most comments have multiple components that combine specific species, areas, and concerns, but in most cases directly address the section of the EIR under commenter review. They are therefore best aggregated under the sub-sections of the Biological Resources, Upland, chapter itself. In one case, comments on mitigation in general and, in particular, disturbance buffers (as mitigation) were closely associated and are grouped under sub-topic designations, BIU-5a and BIU-5b.

Commenters provided a variety of useful information that was incorporated into the text of the EIR wherever possible. Several commenters stressed the value of the Central Bay and surrounding habitat as a regional resource, especially in light of the decline in such habitats over the past 150 years. Many wished the EIR to discuss a broader range of species. A common theme was to express concern about the specificity and enforceability of mitigation measures.

12.19.2 General Upland Biological Resources Issues [BIU-1]

Summary of Issues Raised by Commenters

Topic BIU-1 is reserved for general comments not obviously associated with identified EIR components. They range from subjects not specifically covered in the EIR to concerns about habitat characterization.

This response addresses all or part of the following comments:

A-NPS2-35
A-NPS2-36
A-NPS2-37
A-NPS2-50
A-NPS2-107
A-NPS2-160
O-ACEC-282
O-CNPS-01
O-GGAS2-06, -10
O-MAS-01
O-MAS-03
I-Bauman-01

- Page 1-70 of the EIR should extend signage and patrols to vegetation along the west shore of Alcatraz. A mitigation buffer needs to include Little Alcatraz and other areas that may be used as haul-outs for marine mammals, and it needs to make clear that the buffer applies to all types of watercraft. [A-NPS2-35, A-NPS2-36, A-NPS2-37]

- Section 5.2 of the EIR should add Marin Headlands as a secondary spectator venue. [A-NPS2-50]
- In Section 5.14-18, reference to tidewater goby is confusing since critical habitat only applies to species regulated by the United States Fish and Wildlife Service. [A-NPS2-107]
- Threatened species, native habitat, and facilities throughout NPS parks must be protected with fencing or additional staff. [A-NPS2-160]
- There must be detailed assurance of the best management practices (BMPs) that must be implemented to protect special species habitat, but if there are fiscal constraints, alternative management capability must be supplied by promoters of the race. [O-CNPS-01]
- The EIR should discuss injured bird releases from the International Bird Rescue Research Center (IBRRC). [O-ACEC-282]
- Section 5.14.1.2 should include additional information on the current state of the Bay reflecting previous environmental impacts, and Section 5.14-6 should include a list of Treasure Island birds. [O-GGAS2-06, O-GGAS2-10]
- The EIR should list enforcement of existing regulations as a necessary mitigation and should provide additional protection for wildlife. [O-MAS-01]
- The EIR should contain a more complete description of proposed uses for Alcatraz. [O-MAS-03]
- There are insufficient protections for marine wildlife and mammals. [I-Bauman-01]

Response BIU-1

Comment A-NPS2-35 requests that the Draft EIR recognize native plant communities, and consider their protection, on the west side of Alcatraz Island. Although the emphasis of the EIR is on sensitive natural communities (as opposed to simply native plants), because impacts on these would be significant under CEQA, the mitigation for plants is broadly written. Mitigation Measure M-BI-1b (EIR Chapter 5.14, Section 5.14.3.3, page 5.14-31) states: "The project sponsor will work closely with the NPS and the California Department of Parks and Recreation (CDPR) to develop a detailed strategy for protecting plant populations." The EIR assumes that there may be other vegetation areas that the National Park Service (NPS) deems are important to protect, and the mitigation measures of fencing and signage could then be applied.

Comments A-NPS2-36 and A-NPS2-37 suggest that the mitigation buffer needs to include Little Alcatraz and other areas that may be used as haul-out for marine mammals, and it needs to make clear that the buffer applies to all types of watercraft. EIR, Mitigation Measure M-BI-4b (Offshore Buffers for Breeding Birds and Snowy Plover) on EIR page 5.14-39 covers the desired area, and states that the AC34 project sponsor shall work with the necessary governmental authorities to create a 100-yard offshore buffer in the form of a marked, marine-protected zone established offshore of areas with colonial breeding birds and other sensitive biological resources. As a practical matter, this will be defined as a 100-yard buffer between any event or motorized spectator vessel and the undeveloped shoreline of the mainland or any island in the Bay. An event-related non-motorized vessel would be included in the prohibition.

Comment A-NPS2-50 requests that EIR recognize the Marin Headlands as a secondary viewing area and expresses concern about the Mission blue butterfly, which occurs in the area. The EIR recognizes this area as a secondary viewing site, but calls it by a different name. As described in the EIR, Chapter 5.14, Section 5.14.1.2, page 5.14-4, the Marin Headlands are called the "Golden Gate National Recreation Area, Southern Marin County." Chapter 5.14, Section 5.14.1.3, page 5.14-13 describes the habitat of the Mission blue butterfly in this area.

Comment A-NPS2-107 is noted. The goby is not an "upland" species, but given agency jurisdiction, the EIR treated it as such in the upland biological resources section.

In response to Comment A-NPS2-160: the EIR recognizes the biological resources referenced in the comment (EIR, Chapter 5.14, Section 5.14.1), and applies mitigations similar to those proposed by the commenter (EIR, Chapter 5.14, Section 5.14.3.3).

Comment O-CNPS-01 concerns the habitat of the Mission blue butterfly and serpentine grasslands. The commenter is referred to Chapter 5.14, Section 5.14.1.3, page 5.14-13, which describes the habitat of the Mission blue butterfly in this area. Serpentine grasslands are present at Inspiration Point. CCSF, working with NPS, would include this site in incident command planning to make available other services, such as biological resources monitoring, if needed. Serpentine habitats nearer the project area are covered in a text revision (see response to Comment A-NPS2-116, below).

In response to Comment O-ACEC-282: AC34 activities are not expected to affect International Bird Rescue Research Center (IBRRC) operations, which can be scheduled around race events.

Comments O-GGAS2-06 and O-GGAS2-10 assert that the text does not reflect the current situation regarding the loss of baylands, i.e., it underestimates the importance of the Central Bay's ecology. In response to these comments, the EIR text on page 5.14-2, second paragraph, is revised as follows (new text is underlined):

> The San Francisco Bay-Delta is the second largest estuary in the United States and supports numerous aquatic habitats and biological communities. The estuary's populations of fish and wildlife have changed markedly in the past 150 years, with losses due to over-harvest, habitat loss and degradation, introduced species, pollutants, and the modification of freshwater flows. It encompasses 479 square miles, including shallow mudflats. San Francisco Bay is divided into four main basins: South Bay, Central Bay, San Pablo or North Bay, and Suisun Bay. This assessment focuses on the Central Bay, which is located between the San Francisco-Oakland Bay Bridge (Bay Bridge) and the Richmond-San Rafael Bridge and connects to the Pacific Ocean through the Golden Gate. The regional setting for purposes of this evaluation includes the shallow water habitats around San Francisco Bay – the "baylands."[2] The Central Bay subregion of the baylands includes the main body of San Francisco Bay. Its major

> streams, all relatively small, include Codornices, Corte Madera, Temescal, and Wildcat Creeks. Lands within this subregion are in Alameda, Contra Costa, Marin, San Francisco, and San Mateo Counties. Together, there are about 33,000 acres of baylands in the Central Bay subregion.

This revision does not change the analysis or conclusions presented in the EIR.

Also, the commenter is referred to the discussion of the area's value to migrating and wintering birds in the EIR, Chapter 5.14, Section 5.14.1.2.

Comment O-MAS-01 requests that the EIR address a broader array of wildlife species. The EIR recognizes that the Bay is important habitat for migrating and resident birds. The EIR's primary responsibility is to identify sensitive wildlife (as opposed to all wildlife) because impacts on these would be significant under CEQA. CEQA Guidelines Section 15065 does direct lead agencies to consider other species when the effects might cause a fish or wildlife population to drop below self-sustaining levels, but that was not considered a possible outcome of the AC34 events. The EIR analysts considered impacts on birds under "Movement of Native Wildlife Species" in EIR Chapter 5.14, Section 5.14.3.3, page 5.14-37.

With respect to Comment O-MAS-03, the value of Alcatraz is well acknowledged in the EIR (Chapter 5.14, Section 5.14.1.2, page 5.14-38) and substantial mitigation measures are proposed. The EIR assumes that normal operations and staffing would continue, and that most of the impacts would come from race-associated maritime traffic and special events taking place there. These events would be limited to corporate hospitality (special events) that would take place within the existing facilities, such as the "Laundry" or "Cellhouse" facilities that are currently used for similar type events. Alcatraz is not designated as a general spectator venue, but some communications equipment would be installed. The EIR developed two separate mitigation measures for Alcatraz, one setting an offshore buffer area to reduce the impacts from the water and air and one for events occurring on the island. These are Mitigation Measure M-BI-4b (Offshore Buffers for Breeding Birds and Snowy Plover; EIR Chapter 5.14, Section 5.14.3.3, page 5.14-39), which would reduce impacts to less-than-significant levels for offshore disturbances; and Mitigation Measure M-BI-4e (Protection for Colonial Breeding Birds on Alcatraz; EIR Chapter 5.14, Section 5.14.1.2, page 5.14-40). Taken together, these measures would limit use on the island, buffer it from aircraft and boat noise, and require special opaque fencing above the nesting cliffs to keep special event guests from coming too close to the birds or their nests.

Comment I-Bauman-01 states that there is a lack of specificity in how protections would be implemented, and suggests slowing traffic down and banning personal watercraft. While the EIR relies to some extent on future planning and consultation, the mitigation measures provide clear descriptions of what the protections are likely to be. The question of speed of boats is an example. The EIR, Chapter 5.14, Section 5.14.3.3, page 5.14-40 (Mitigation Measure M-BI-4a: Restrictions on Spectator Craft within Race Course Boundaries) states: "As part of this effort, the plan shall include provisions and restrictions to minimize the movement of spectator boats and thereby minimize disruption of feeding or resting least terns and other birds. Specifically, this may include requiring spectator vessels to be either anchored or as stationary as possible, maneuvering only to maintain safe distances from other vessels within the boundaries of the race course when races are occurring." There would also be personal watercraft in use, but these vessels would be associated with events, would be operated by professionals, and would be subject to existing regulations and requirements for protection of resources and public safety.

12.19.3 Upland Biological Resources Setting [BIU-2]

Summary of Issues Raised by Commenters

Topic BIU-2 comprises comments on aspects of the discussion of the existing environment that contained perceived errors or omissions. This included overlooked areas or species and corrections to sensitive plant and animal distributions.

This response addresses all or part of the following comments:

A-NPS2-99
A-NPS2-100
A-NPS2-102
A-NPS2-103
A-NPS2-104
A-NPS2-116
A-NPS2-199
A-NPS2-202
A-NPS2-206
O-ACEC-280, -281
O-ACEC-284
O-ACEC-283, -285, -286
O-ACEC-287
O-ACEC-289
O-ACEC-290
O-ACEC-292
O-ACEC-303
O-GGNPC2-02

- There are several locations for lupines and Mission blue butterflies in the Marin Headlands, and current fencing may be insufficient to protect the resources. [A-NPS2-99, A-NPS2-199]
- Alcatraz has a significant population of nesting seabird, waterbirds, and harbor seals. [A-NPS2-100]
- Page 5.14-4 should be amended because San Francisco lessingia does not occur at Crissy Marsh and Crissy Marsh is not a Special Ecological Area. It should also correct the spelling of "sand-spurrey." [A-NPS2-102]
- Page 5.14-7 should remove the bank swallow and add peregrine falcon, common murre, black oystercatcher, and pigeon guillemot to this list of species of management concern. [A-NPS2-103]
- Note corrections to Table 5.14-1, Special-Status Upland Species Considered in Evaluation of the Project Area, with respect to San Francisco lessingia, San Francisco Forktail damselfly, great blue heron, black oystercatcher, northern harrier, double-crested cormorant, and serpentinite. [A-NPS2-104]
- Page 5.14-33 should mention coastal scrub and serpentine habitat on Presidio coastal bluffs. [A-NPS2-116]
- The Needles area and its breeding birds should be protected. [A-NPS2-202]
- The EIR should mention that sensitive species at Marin Headlands include Mission blue butterfly, harbor seals, and seabirds. [A-NPS2-206]
- Section 5.14.1.2 should add the peregrine falcon and more information on black-crowned night herons. [O-ACEC-280, O-ACEC-281]

- Correct the spelling of "sand-spurrey." [O-ACEC-284]
- Section 5.14.1.2 should list all bird species in this area, including brown creeper, pygmy nuthatches, and various waterfowl. [O-ACEC-283, O-ACEC-285, O-ACEC-286]
- Mission blue butterfly habitat is "occupied," not "potentially occupied." [O-ACEC-287]
- The peregrine falcon forages in downtown San Francisco. [O-ACEC-289]
- California clapper rail should be added to the listed species. [O-ACEC-290]
- The list of marine birds covered by the Migratory Bird Treaty Act should include pigeon guillemot, Caspian tern, snowy egret, black crowned night heron, cliff swallow, bank swallow, and black oystercatcher. [O-ACEC-292]
- The EIR should provide maps of the wetlands at Piers 94 and 98. [O-ACEC-303]
- The unique nature of the native grass that has been reestablished at Crissy Field is not acknowledged with respect to potential impacts and restoration requirements. [O-GGNPC2-02]

Response BIU-2

In response to Comment A-NPS2-99, which mentions additional locations for lupines and Mission blue butterflies: Mission blue butterfly habitat is recognized in the EIR as occurring throughout the southern Marin Headlands (Chapter 5.14, Section 5.14.1.3, page 5.14-13).

Comment A-NPS2-199 also deals with Mission blue butterflies, and asserts that current fencing there may be insufficient to protect the resource. This comment is noted, and the commenter is referred to Response BIU-5a, below, responses to Comments O-ACEC-301 and O-ACEC-304, regarding fencing, signage, and area closures in spectator areas.

Comment A-NPS2-202 asks that the Needles area and its breeding birds be protected. The actual fence and/or signage layout would be detailed in the Fencing and Signage Plan, prepared in consultation with the NPS.

Information on bird and seal use of Alcatraz in Comment A-NPS2-100 is acknowledged. EIR Chapter 5.14, Section 5.14.1.2, page 5.14-3, focused on four species as those most unique: the two species of cormorants for which Alcatraz is the only breeding colony site in San Francisco Bay, and black-crowned night heron and snowy egret, whose nesting colonies are listed as special-status on the CDFG "Special Animals" list. Based on another comment, guillemots were added to the list (see response to Comments O-ACEC-280 and O-ACEC-281).

Comment A-NPS2-102 provides corrections to the Crissy Marsh description. In response to this comment, the EIR text on page 5.14-4 is revised as follows (deleted text is shown as ~~strikethrough~~):

> Crissy Field is the former Presidio Army Base Airfield, with turf grasses and ornamental landscaping. Twenty-two acres were converted into a tidal marsh (Crissy Marsh), which support salt marsh species such as Pacific cordgrass (*Spartina foliosa*), pickleweed (*Salicornia*

sp.), salt grass (*Distichlis spicata*), alkali heath (*Frankenia salina*), sand-spurrey (*Spergularia* sp.), fleshy jaumea (*Jaumea carnosa*), and marsh rosemary (*Limonium californicum*). Northern Foredune, Central Dune Scrub and wetland communities are also present. Both the National Park Service (NPS) and the Presidio Trust consider natural communities in the Crissy Marsh important~~. and the Crissy Field dune community is identified as a Special Ecological Area (SEA) by the NPS. San Francisco lessingia (*Lessingia germanorum*), which is both federally and state-listed, occurs at Crissy Marsh~~

This revision does not change the analysis or conclusions presented in the EIR.

In response to Comment A-NPS2-103: the list (the EIR text on page 5.14-7) was an official one maintained by the Golden Gate National Recreation Area (GGNRA), *Species of Management Concern*, and its contents were not edited in any way other than adding an asterisk to certain species. The list was included in the EIR as an informative descriptor of the project vicinity. However, in response to this comment, the list on EIR page 5.14-7 is expanded as requested by the commenter (new text is underlined).

- sanderling *Calidris alba*
- willet *Catoptrophorus semipalmatus*
- *pigeon guillemot *Cepphus columba*
- common murre *Uria aalge*
- *black oystercatcher *Haematopus bachmani*
- *snowy egret *Egretta thula*
- *western gull *Larus occidentalis*
- marbled godwit *Limosa fedoa*
- *black-crowned night-heron *Nycticorax nycticorax*
- *pelagic cormorant *Phalacrocorax pelagicus*
- *brandt's cormorant *Phalacrocorax penicillatus*
- *bank swallow *Riparia riparia*
- *Caspian tern *Sterna caspia*
- Elegant tern *Sterna elegans*
- barred owl *Strix varia*
- peregrine falcon *Falco peregrinus*
- coyote *Canis latrans*
- *harbor seal *Phoca vitulina*
- mountain lion *Puma concolor*
- pink sand verbena *Abronia umbellata ssp. breviflora*
- rose rockcress *Arabis blepharophylla*
- Marin manzanita *Arctostaphylos virgata*
- Nuttall's milkvetch *Astragalus nuttallii* var. *virgatus*
- California saltbush *Atriplex californica*
- Oakland mariposa lily *Calochortus umbellatus*
- coast Indian paintbrush *Castilleja affinis ssp. affinis*
- Glory bush *Cean*othus gloriosus var. exaltatus
- Point Reyes ceanothus *Ceanothus gloriosus var. gloriosus*
- Mason's ceanothus *Ceanothus masonii*
- *San Francisco spineflower *Chorizanthe cuspidata* var. *cuspidata*
- *Franciscan thistle *Cirsium andrewsii*
- Pt. Reyes bird's-beak *Cordylanthus maritimus* ssp. *palustris*
- California croton *Croton californicus*
- California bottlebrush grass *Elymus californicus*
- San Francisco wallflower *Erysimum franciscanum*
- *bluehead gilia *Gilia capitata* ssp. *chamissonis*
- hairy gumweed *Grindelia hirsutula*
- wedgeleaf horkelia *Horkelia cuneata ssp. sericea*
- Arcuate bush mallow *Malacothamnus arcuatus*
- elegant piperia *Piperia elegans*
- artist's popcornflower *Plagiobothrys chorisianus var. chorisianus*
- coast redwood *Sequoia sempervirens*
- *San Francisco campion *Silene verecunda* ssp. *verecunda*
- California cordgrass *Spartina foliosa*
- Santa Cruz microseris *Stebbinsoseris decipiens*
- camphor tansy *Tanacetum camphoratum*
- *San Francisco owl's-clover *Triphysaria floribunda*
- *Franciscan manzanita *Arctostaphylos franciscana*

This revision does not change the analysis or conclusions presented in the EIR.

In response to Comments A-NPS2-103 and O-ACEC-289: the presence of the peregrine falcon in the area is discussed in the EIR (Chapter 5.14, Section 5.14.1.3, page 5.14-16). The text on page 5.14-16, first paragraph, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> **Raptor Species**
>
> The following raptor species are protected by the Fish and Game Code or are California Species of Special Concern, and breed in large trees or tree cavities in the Presidio's historic forest:[20] great horned owl (*Bubo virginianus*), sharp-shinned hawk (*Accipiter striatus*), red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus cyaneus*), and American kestrel (*Falco sparverius*). The peregrine falcon (*Falco peregrinus anatum*)~~,~~ breeds successfully in the area and forages near the Bay Bridge, in the City of San Francisco, and roosts on and forages near the Golden Gate Bridge.

This revision does not change the analysis or conclusions presented in the EIR.

In response to Comment A-NPS2-104: most of the changes suggested for Table 5.14-1 are incorporated as text revisions for EIR Chapter 5.14, Section 5.14.1.3, pages 5.14-8 through 5.14-11. The suggestions in Comment O-ACEC-292 to include additional birds covered by the Migratory Bird Treaty Act are acknowledged in the revised Table 5.14-1, as shown below. Note that eelgrass is covered in Section 5.14.4.3 and therefore is not included in this table. In response to these comments, the EIR text in Table 5.14-1 is revised as shown on the following page (deleted text is shown as ~~strikethrough~~ and new text is underlined).

This revision does not change the analysis or conclusions presented in the EIR.

In response to Comment A-NPS2-116, EIR text on page 5.14-32, bottom of the page, that addresses coastal scrub and serpentine habitat is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> As noted above in Section 5.14.1.5, the project area supports five sensitive natural communities recognized by CDFG and/or in this EIR: California Buckeye Woodland on Yerba Buena Island; Coastal Bluff Scrub (including northern coastal [*Franciscan*] scrub on Yerba Buena Island) and serpentine habitat, south ~~and east~~ of the Golden Gate Bridge in the Presidio, and coastal bluff scrub along the Marin Headlands; and Coastal Salt Marsh developed as part of the Crissy Field Restoration Project. ~~In addition, the Crissy Field dune community is identified as a Special Ecological Area (SEA) by the NPS, a community that also occurs at Baker Beach.~~

This revision does not change the analysis or conclusions presented in the EIR.

TABLE 5.14-1 [REVISED]
SPECIAL-STATUS UPLAND SPECIES CONSIDERED IN EVALUATION OF THE PROJECT AREA

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFG/CNPS[a]**	**General Habitat**	**Potential for Species Occurrence Within Project Area**
STATE OR FEDERALLY LISTED SPECIES			
San Bruno elfin butterfly *Callophrys mossii bayensis*	FE/--	Inhabits rocky outcrops and cliffs on north-facing, often shady slopes in coastal scrub and relatively undisturbed grasslands. Larval host plant is *Sedum spathulifolium.*	Low. Species occurrences at Milagra Ridge but no suitable habitat in project area.
Bay checkerspot butterfly *Euphydras editha bayensis*	FT/--	Restricted to native grasslands on outcrops of serpentine, with dwarf plantain and owl's clover as host plants.	Low. Suitable native serpentine grasslands do not occur on project area.
Mission blue butterfly *Icaricia icariodes missionensis*	FE/--	Coastal scrub and grassland habitat. Requires *Lupinus albifrons, L. variicolor, or L. formosus* as larval host plant.	Present. Found in Tennessee Valley, Marin Headlands including Fort Baker.
Callippe silverspot butterfly *Speyeria callippe callippe*	FE/--	Occurs in grasslands with a native component. Host plant is *Viola pedunculata.*	Absent. Current populations known only south of San Francisco.
California red-legged frog *Rana draytonii*	FT/CSC	Breeds in stock ponds, pools, and slow-moving streams.	Absent. Although present at various localities within Marin County, including Muir Beach and Rodeo Lagoon, no suitable habitat in project area.
San Francisco garter snake *Thamnophis sirtalis tetrataenia*	FE/CE	Most often observed in the vicinity of standing water; ponds, lakes, marshes, and sloughs. Temporary ponds and seasonal bodies of water are also used. Banks with emergent and bankside vegetation are preferred and used for cover.	Absent. Historically occurred on San Francisco peninsula but current populations known only south of San Francisco.
American peregrine falcon *Falco peregrinus anatum*	DL/DL	Woodlands, coastal habitats, riparian areas, coastal and inland waters, humanmade structures that may be used as nest or temporary perch sites.	Moderate. Although the species is present near the Bay Bridge, it is unlikely to forage in the project area.
Western snowy plover *Charadrius alexandrius nivosus*	FT/CSC	Sandy coastal beaches, salt pans, coastal dredged spoils sites, dry salt ponds, salt pond levees, and gravel bars. Nests in sandy substrate and forages in sandy marine and estuarine bodies.	Present. Overwintering populations on Ocean Beach and smaller population at Wildlife Protection Area at Crissy Field. Periodically sighted at other beaches such as Baker Beach and Rodeo Beach.
Brown pelican *Pelecanus occidentalis*	DL/DL&FPS	Nests on protected islets near freshwater lakes and marine waters.	Present. Forage and roost within the project area.
California least tern *Sterna antillarum browni*	FE/FPS	Feeds in relatively shallow, near-shore waters, coastal freshwater ponds, channels, and lakes occupied by small fish. Colonial nesters on sand, gravel, or shell beaches where visibility is good.	Present. Forages within the project area. Nearest extant breeding colony in San Francisco Bay is located at the former Alameda Naval Air Station.
Bank swallow *Riparia riparia*	--/ST	Requires vertical banks/cliffs with fine textured/sandy soils near streams, rivers, lakes, ocean to dig nesting burrows.	Present. Species nests in the Fort Funston cliffs.

TABLE 5.14-1 (Continued)
SPECIAL-STATUS UPLAND SPECIES CONSIDERED IN EVALUATION OF THE PROJECT AREA

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFG/CNPS[a]**	**General Habitat**	**Potential for Species Occurrence Within Project Area**
STATE OR FEDERALLY LISTED SPECIES (cont.)			
San Francisco lessingia *Lessingia germanorum*	FE/CE/List 1B	Remnant dunes in coastal scrub	Present. Extant at ~~Crissy Field dune habitat.~~ Baker Beach.
Presidio manzanita *Arctostaphylos hookeri* ssp. *ravenii*	FE/CE/1B	Chaparral, coastal prairie, coastal scrub.	Present. Extant at Baker Beach.
Marin dwarf-flax (Marin western flax) *Hesperolinon congestum*	FT/CT	Serpentine chaparral (coastal prairie-grassland) habitat.	Present. Extant at Baker Beach. ~~Crissy Marsh~~.
California seablite *Suaeda californica*	FE/ 1B.1	Coastal salt marshes.	Absent. Species was reintroduced into Crissy Marsh; however, no transplants survived.
Presidio clarkia *Clarkia franciscana*	FE/CE/List 1B.1	Inhabits coastal scrub, valley and foothill grasslands.	Present. Known from Inspiration Point and along bluffs east and north of Baker Beach.
OTHER SPECIAL-STATUS SPECIES			
ANIMALS			
San Francisco forktail damselfly *Ischnura gemina*	None	Permanent freshwater marshes	Low. The damselfly is limited to wetland vegetation. Reported from ditch adjacent to Marine Drive.
Tree lupine moth *Actinemys marmorata*	FSC/--	Coastal sand dunes are typically associated with the moth's larval host plant, yellow bush lupine (*Lupinus arboreus*).	Moderate. The tree lupine moth is found at several locations south of the Golden Gate Bridge.
Western pond turtle *Actinemys marmorata*	FSC/CSC	Freshwater ponds and slow streams edged with sandy soils for laying eggs.	Low. Aquatic habitat not available in the project area. Nearest occurrence is Lake Merced.
Great blue heron *Ardea herodias*	--/* Rookeries only	Nest colonially in groves of trees. Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes.	Low. Breeding has been observed at Stow Lake in Golden Gate Park, and at Lake Merced, ~~but project area lacks suitable habitat~~. Known to nest at Alcatraz as individuals.
Great horned owl *Bubo virginianus*	--/3503.5	Often uses abandoned nests of corvids or squirrels; nests in large oaks, conifers, eucalyptus.	Present. Breeds in the historic forest of the Presidio.
Sharp-shinned hawk *Accipiter striatus*	--/CSC	Nests in forest canopy	Present. Breeds in the historic forest of the Presidio.
Red-shouldered hawk *Buteo lineatus*	--/3503.5	Usually nests in large trees, often in woodland or riparian deciduous habitats. Forages over open grasslands and woodlands.	Present. Breeds in the historic forest of the Presidio.
Red-tailed hawk *Buteo jamaicensis*	--/3503.5	Usually nests in large trees, often in woodland or riparian deciduous habitats.	Present. Breeds in the historic forest of the Presidio.
Northern harrier *Circus cyaneus*	--/CSC	Mostly nests in emergent vegetation, wet meadows or near rivers and lakes, but may nest in grasslands away from water.	Probable, but does not breed in the historic forest of the Presidio.

TABLE 5.14-1 (Continued)
SPECIAL-STATUS UPLAND SPECIES CONSIDERED IN EVALUATION OF THE PROJECT AREA

Common Name *Scientific Name*	**Listing Status USFWS/ CDFG/CNPS[a]**	**General Habitat**	**Potential for Species Occurrence Within Project Area**
OTHER SPECIAL-STATUS SPECIES (cont.)			
ANIMALS (cont.)			
American kestrel *Falco sparverius*	--/3503.5	Nests in cavities in large trees near open areas.	Probable. Breeds in the historic forest of the Presidio.
Double-crested cormorant *Phalacrocorax auritus*	--/CSC	Nests colonially on coastal cliffs, offshore islands, and along lake margins.	Present. Breeds on Yerba Buena Island and roosts on Little Alcatraz just offshore Alcatraz and forages throughout the project area.
Allen's hummingbird *Selasphorus sasin*	FSC/* (AWLY)	Inhabits coastal scrub and a variety of woodlands and riparian habitat, as well as gardens in the urban-wildland interface.	Low. Suitable nesting and foraging habitat is present throughout San Francisco, but not along the northern waterfront at spectator sites or secondary viewing areas.
Black-crowned night-heron *Nycticorax nycticorax*	*(Nesting colony)	Nests colonially on along margins of water bodies.	Present. Breeds on Alcatraz and forages throughout the project area.
Snowy egret *Egretta thula*	*(Nesting colony)	Nests colonially on along margins of water bodies.	Present. Breeds on Alcatraz and forages throughout the project area.
Black oystercatcher *Haematopus bachmani*	*(Nesting colony)	Nests frequently on islands, where a pair builds a nest above the high tide mark and then defends an adjacent feeding area.	Present. Nests near Pier 98, Alcatraz, Marin Headlands, and Baker Beach.
Caspian tern *Sterna caspia*	*(Nesting colony)	Nests in colonies on sandy estuarine shores, on levees in salt ponds, and on islands in alkali and freshwater lakes	Present. Nests at Pier 64.
Townsend's Pacific big-eared bat *Corynorhinus townsendii townsendii*	FSC/CSC	Inhabits a variety of habitats, requires caves or human made structures for roosting.	Present. Potential roosting habitat is available in abandoned or underused buildings throughout the project area. Recorded CNDDB occurrence at Angel Island.
Fringed and Yuma myotis *Myotis thysanodes, yumanenesis*	FSC/--	Inhabits a variety of woodland habitats, roosts in crevices or caves, and forages over water and open habitats.	Low. Potential roosting abandoned or underused buildings in the project area.
Angel Island mole *Scapanus latimanus insularis*	/CSC	Inhabits northern coastal scrub and chaparral.	Presumed present on Angel Island.
PLANTS			
Dune gilia *Gilia capitata ssp. chamissonis*	//List 1B.1	Restricted to coastal dunes and sandy openings in coastal scrub from San Francisco to Bodega Bay.	Present. Know from Yerba Buena Island and introduced at Crissy Field, Baker Beach, and Lobos Creek Valley.
Presidio manzanita *Arctostaphylos montana* ssp *ravenii*	//List 1B.1	Inhabits coastal scrub, occasionally serpentinite.	Present. Introduced west of Lincoln Boulevard, near Baker Beach.
Franciscan manzanita *Arctostaphylos franciscana*	//List 1B.1	Inhabits coastal scrub, occasionally serpentinite.	Present. Recently re-discovered near the project area.
San Francisco Bay spineflower *Chorizanthe cuspidata* var. *cuspidate*	//List 1B.2	Inhabits coastal scrub, coastal dunes.	Probable. California Natural Diversity Database (CNDDB) records in project area.

TABLE 5.14-1 (Continued)
SPECIAL-STATUS UPLAND SPECIES CONSIDERED IN EVALUATION OF THE PROJECT AREA

Common Name *Scientific Name*	**Listing Status USFWS/ CDFG/CNPS[a]**	**General Habitat**	**Potential for Species Occurrence Within Project Area**
OTHER SPECIAL-STATUS SPECIES (cont.)			
PLANTS (cont.)			
Franciscan thistle *Cirsium andrewsii*	//List 1B.2	Inhabits coastal scrub, coastal bluff scrub.	Present. Occurs in Marin Headlands. 2008 CNDDB record from Fort Pont vicinity.
Blue coast gilia *Gilia capitata* ssp. *chamissoni*	//List 1B.1	Inhabits coastal scrub, coastal dunes.	Probable. Multiple current CNDDB records in project area.
Point Reyes bird's beak *Cordylanthus maritimus ssp. palustris*	//List 1B.2	Inhabits coastal salt marsh, wetland-riparian.	Present. Reintroduced into Crissy Field area.
San Francisco gumplant *Grindelia hirsutula* var. *maritime*	//List 1B.2	Inhabits coastal scrub, valley and foothill grasslands.	Present. Known from Baker Beach.
San Francisco campion *Silene verecunda* ssp. *verecunda*	//List 1B.2	Inhabits coastal scrub, valley and foothill grasslands.	Present. Known from Crissy Field area.
San Francisco owl's clover *Triphysaria floribunda*	//List 1B.2	Inhabits coastal scrub, valley and foothill grasslands.	Present. Known from Doyle Drive area.

In response to Comment A-NPS2-206: Mission blue butterfly habitat is recognized in the EIR as occurring throughout the southern Marin Headlands (Chapter 5.14, Section 5.14.1.3, page 5.14-13) and being vulnerable to impact. Although seabirds do nest in the vicinity of Point Bonita to Bird Island near Rodeo Beach, the impacts there would be moderated by their distance from the AC34 events, more than a mile west of the primary race area east of the Golden Gate.

Information in Comments O-ACEC-280 and O-ACEC-281 regarding black-crowned night heron is acknowledged, but the species only achieves special status when breeding colonies are involved. The peregrine falcon is discussed in Chapter 5.14, Section 5.14.1.3, page 5.14-8. Pigeon guillemot nest sites are protected, and the EIR text on page 5.14-3, last paragraph, is revised as follows (new text is underlined):

> **Alcatraz Island**
>
> For the most part, vegetation on Alcatraz Island, formerly a relatively barren rock, comprises grasses that have colonized the island as windblown seed and plants that have naturalized from the gardens planted by prison guards. Two species of cormorants (*Phalacrocorax sp.*), the Brandt's cormorant and the pelagic cormorant, breed on Alcatraz. Although neither species is considered special-status, Alcatraz is the only breeding colony site for these two species in the San Francisco Bay.[5] Other nesters include black-crowned night heron (*Nycticorax nycticorax*) and snowy egret (*Egretta thula*), and the pigeon guillemot (*Cepphus columba*). For the latter three species, nesting colonies are listed as special-status on the CDFG "Special Animals" list.

This revision does not change the analysis or conclusions presented in the EIR.

In response to Comments O-ACEC-284 and A-NPS2-102, the spelling of "sand spurrey" is corrected on page 5.14-4, second full paragraph, as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> ... sand -spurrey (*Spergularia* sp.), ... *(hyphen deleted)*

This revision does not change the analysis or conclusions presented in the EIR.

Comments O-ACEC-283, O-ACEC-285, and O-ACEC-286 request that the EIR develop comprehensive bird lists. However, the EIR's primary responsibility is to identify sensitive wildlife (as opposed to all wildlife) because impacts on these could be significant under CEQA. Transient use of the waterfront aquatic sites does not change the essential fact that these areas are not valuable wildlife habitat.

Comment O-ACEC-287 requests correction of the occupancy status of Mission blue butterfly. As far as the EIR is concerned, however, Mission blue butterfly "potential" habitat is treated the same as sites where occupancy has been determined. The text is changed as follows in the last paragraph of EIR, page 5.14-28, under "Fort Baker and Marine Headlands" (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> …the NPS considers suitable – and presumed~~-potentially~~ occupied -- habitat to extend west along the Marin Headlands south of Conzelman Road, (a likely spectator route) and especially in the vicinity of Kirby Cove.

This revision does not change the analysis or conclusions presented in the EIR.

In response to Comment O-ACEC-290: the clapper rail was not considered present in the project area, notwithstanding its recent recorded presence in Heron's Head Park. Both cordgrass and pickleweed are present in Crissy Marsh, but the site is small and isolated; the Spartina Project[1] evaluated the habitat quality of the marsh and determined that Crissy Marsh lacked suitable clapper rail habitat and no further surveys were needed.

In response to Comment O-ACEC-303: no project activities are proposed in the vicinity of Pier 94, and Figure 3-39 on page 3-112 of the EIR is adequate to characterize the conditions at Pier 98 that would be affected by proposed fill removal activities.

In response to Comment O-GGNPC2-2: the EIR recognizes that California native vegetation is an important component of the restored landscape at Crissy Field and elsewhere in the project area. This is most clearly reflected in the recognition of the policies of the *Presidio Trust Management Plan* (EIR, Chapter 5.14.1., Section 5.14.2.1, page 5.14-19). The project strives to be consistent with these policies, including the following: "Identify, protect, enhance, restore, and expand the Presidio's ecosystems. Protect, establish, and manage areas of native vegetation."

---

[1] Invasive Spartina Project, *2009 Clapper Rail Monitoring Report*.

To better disclose the presence of native vegetation at Crissy Field itself, the EIR text on page 5.14-4, second paragraph, is revised as follows (new text is underlined):

> **Crissy Field**
>
> Crissy Field is the former Presidio Army Base Airfield, with native turf grasses and ornamental landscaping.

This revision does not change the analysis or conclusions presented in the EIR.

The impacts analysis focuses on "special-status" species, e.g., those on special animal or special plant lists maintained by the California Department of Fish and Game (CDFG), which may be considered those most likely to be significantly affected by the project.

12.19.4 Upland Biological Resources Regulatory Framework [BIU-3]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-20	A-NPS2-106	A-NPS2-109
A-NPS2-46	A-NPS2-108	

- NPS regulations and policies are not adequately presented in the Executive Summary on page 1-11, nor in the document as a whole. Please include NPS Management Policies 2006; NPS Directives Order-12; NPS Organic Act of 1916; General Authorities Act of 1970 with amendments of 1978; GGNRA enabling legislation of 1972; SAFR enabling legislation; International Migratory Bird Act; the Code of Federal Regulations, especially 36CFR; and Local Compendium of Federal Regulations. [A-NPS2-20]
- The list of federal plans and policies is inadequate. It should include 1993 Alcatraz Developoment Concept Plan EA/FONSI; Presidio Trust Management Plan and General Amendment; 1999 Golden Gate National Recreation Area Natural Resource Management Plan; Crissy Field EA; 2001 Vegetation Management Plan, Presidio of San Francisco; 2001 Alcatraz Island Historic Preservation and Safety Construction Program; and the Endangered Species Act, Migratory Bird Treaty Act, Marine Mammal Protection Act, Magnuson-Stevens Fishery Conservation and Management Act and Essential Fish Habitat Designation, Airborne Hunting Act, and the Park Compendium for Golden Gate National Recreation Area. The Organic Act should be correctly quoted—"wildlife" should be two words. The EIR should also cite the GGNRA enabling legislation to provide additional legal framework. [A-NPS2-46]
- Page 5.14-18 should reference the NPS Presidio General Management Plan Amendment and other federal regulations listed by the NPS. [A-NPS2-106, A-NPS2-109]
- The EIR text misleads the reader into thinking only a couple of Alcatraz bird species are protected under the Migratory Bird Treaty Act, when in fact all Alcatraz bird species are protected. [A-NPS2-108]

Response BIU-3

In response to Comments A-NPS2-106 and A-NPS2-109, the EIR text on page 5.14-19, the section on "The Presidio Trust Management Plan," is revised to include additional relevant federal plans and policies, as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

The Presidio Trust Management Plan and General Amendment

The Presidio Trust Management Plan was designed to ensure the preservation of the Presidio's National Historic Landmark District, the restoration of valuable natural resources, and the opportunity for diverse and meaningful visitor experiences, while ensuring the long-term environmental and financial sustainability of the park. The plan is not an implementation plan, but a statement of policy to guide future implementation decisions. The plan was developed through an extensive public process and will undergo future additional planning and public input. ~~declares that the following principles will guide future actions and decisions for biological resources within the Presidio:~~

The plan contains the following relevant policies.

Chapter 1 – Preserving and Enhancing Park Resources

3. Rehabilitate the historic planted forest, and preserve, enhance, and manage other forested areas that provide values such as windbreaks, vistas, screening, and wildlife habitat.
6. Identify, protect, enhance, restore, and expand the Presidio's ecosystems. Protect, establish, and manage areas of native vegetation.
7. Identify, monitor, and protect sensitive wildlife species, and restore and maintain their habitats.
8. Rehabilitate and enhance natural water resources. Manage on-site water resources to protect ground and surface water, natural wetland and riparian habitat, and water supplies for the Presidio community. Protect important native geologic and soil components.

Chapter 3 – Crissy Field (AREA B) District: Bayfront Recreation and Cultural Destination Guidelines for Open Space/Vegetation/Views

- Protect and restore the ecological communities on the western bluffs.

2001 Vegetation Management Plan and Environmental Assessment for the Presidio of San Francisco

The Vegetation Management Plan (VMP) and Environmental Assessment (EA) have been developed to guide the NPS and the Presidio Trust in the management of vegetation resources at the Presidio. Both natural and historic vegetation resources are protected and enhanced under the VMP and the EA; the central goal of the VMP and EA is the development of sustainable and enduring vegetation that can be managed with less maintenance effort than is currently required, with increased resource sensitivity, and using natural processes whenever possible. Implementation of the VMP will result in a vegetation mosaic of native plant communities, historic forest, and landscape vegetation, which will increase species diversity in the Presidio.

The VMP and EA contain the following relevant objectives.

Section 3.2.2 Objectives for Management of Native Plant Communities

- Protect and enhance existing native plant communities and their remaining habitat by removing threats to native species, repairing damage to habitat, and increasing reproductive success.
- Restore and enlarge native plant communities by reclaiming habitat from past development, non-native species, and non-native trees outside of historic forest management zone.
- Preserve and enhance rare plant species habitats by evaluating species-specific habitat needs and giving high priority to actions that preserve and enhance those habitats.
- Protect and enhance wildlife habitat by expanding habitat for native plants, increasing native species and habitat diversity, avoiding disturbance to non-native forests with high wildlife value, and avoiding disturbance to wildlife habitat during critical times of the year (e.g., nesting bird season).

Actions to Obtain Objectives

- Continue development of a long-term inventory and monitoring program.
- Protect remaining native plant communities.
- Restore native plant communities.
- Maintain and evaluate restoration success.
- Manage and enhance habitat for rare plants.
- Continue to implement restoration and education programs.

Section 3.3.2 Objectives for Management of Historic Forest Zone

- Preserve live, healthy trees within the historic forest management zone.
- Rehabilitate the aging forest within the historic forest management zone and manage it to become more self-sustaining by increasing structural and species diversity and encouraging natural regeneration.
- Protect and enhance valuable forest wildlife habitats and avoid adverse habitat impact in rehabilitation activities.
- Select replacement tree species to meet specific needs (for example, to reduce canopy height of forest trees adjacent to specific neighboring communities or to provide buffers between historic areas and native plant communities).

Actions to Obtain Objectives

- Apply rehabilitation standards to treatment of historic forest.
- Implement concepts for rehabilitation of the historic forest management zone.
- Preserve key historic forest stands through intensive management.
- Develop multi-agency cooperative agreements.

Section 3.4.3 Objectives for Management of Landscape Vegetation

- Identify and maintain heritage trees.

These revisions do not change the analysis or conclusions presented in the EIR.

In response to Comments A-NPS2-20, A-NPS2-46, A-NPS2-106 and A-NPS2-109, the EIR text on page 5.14-20 is revised to include the following text after the section "Golden Gate national Recreation Area Management Plan" to address additional relevant federal plans and policies (new text is underlined):

GGNRA Natural Resources Section of the Resources Management Plan

The 1999 Natural Resources Management Plan documented the existing natural resources of the GGNRA and laid out the foundation of a natural resource program to inventory, preserve, and restore habitats and the ecosystems upon which they depend. This plan provides strategies for protecting the natural systems and resources. As stated in the plan, compliance with NEPA and other resource protection legislation is not accomplished through the plan.

2001 Alcatraz Island Historic Preservation and Safety Construction Program

The purpose of the Alcatraz Island Historic Preservation and Safety Construction Program includes protecting the public health and safety of the more than 1 million people who visit Alcatraz each year, preserving the National Historic Landmark District, and implementing the needed repairs in a manner that minimizes impacts on biological resources. The EIS was certified in 2001, and most of the Phase 1 activities of the project have been completed. Mitigation measures implemented as part of the project included:

- Best management practices for in-water construction to protect habitat for Pacific herring
- Height restrictions and monitoring to prevent impacts on Pacific harbor seals and California sea lions hauled out on Alcatraz Island
- Temporal and seasonal restrictions for each construction area and gull minimization measures to protect nesting seabird habitats.
- Special-status plant surveys for San Francisco campion, as well as avoidance/seed collection for any populations discovered on the island

Golden Gate National Recreation Area Park Compendium

All national parks have a compendium, or a list of regulations established under the Park Superintendent's discretionary authority. Regulations regarding biological resources in the 2010 GGNRA compendium are described below.

36 CFR 2.2(e). The entire park is closed to viewing wildlife by artificial light, including infrared lighting.

> *36 CFR 7.97*(a). Docking of any privately owned vessels on Alcatraz Island is prohibited, except in emergencies.
>
> (36 CFR 7.97)(d). In the Crissy Field Wildlife Protection Area and Ocean Beach Snowy Plover Protection Area, dogs are required to be on leash all year except from May 15 to July 1.

These revisions do not change the analysis or conclusions presented in the EIR.

In response to Comment A-NPS2-108, the EIR text on page 5.14-18 is revised as follows (deleted text is shown as ~~strikethrough~~):

> ### *Migratory Bird Treaty Act*
>
> The federal Migratory Bird Treaty Act (16 USC, Section 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act applies to whole birds, parts of birds, and bird nests and eggs. Most birds, except game and non-native birds, are covered by the Act. ~~Marine birds that are covered by provisions of the Migratory Bird Treaty Act and could be expected to be present in the project area include the brown pelican (*Pelicanus Occidentalis*), double-crested cormorant (*Phalacrocorax auritus*), and the western gull (*Larus occidentalis*).~~

This revision does not change the analysis or conclusions presented in the EIR.

In response to Comment A-NPS2-26, the following text is added to page 5.14-18, after the second full paragraph (new text is underlined):

> ### *Airborne Hunting Act*
>
> The Airborne Hunting Act is a subsection of the Fish and Wildlife Act. Approved in 1971 and amended and approved in 1972, the act prohibits shooting or attempts to shoot birds, fish, or other animals while airborne; use of an aircraft to harass any bird, fish or other animal; and knowing participation in using an aircraft for either activity. The act does not apply to persons employed by, or operating under permit authorization from, any state or the United States who is employed in protecting land, water, wildlife, livestock, domesticated animals, human life, or crops.

This revision does not change the analysis or conclusions presented in the EIR.

Please also see Section 12.5.4 of this document, Response PP-3a, which includes text edits to the plans and policies section of the EIR to address additional NPS regulations, plans, and associated legislation.

12.19.5 Upland Biological Resources Impacts [BIU-4]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-94
A-NPS2-168
A-NPS2-175
A-NPS2-178
A-NPS2-187
O-ACEC-274
O-ACEC-277
O-ACEC-278
O-ACEC-279
O-ACEC-288
O-ACEC-291
O-ACEC-293
O-ACEC-294
O-ACEC-295
O-ACEC-306
O-GGAS1-03
O-GGAS2-09
O-MAS-09
O-MAS-10
A-MCCDA-09
O-WW-44, -45

- Section 5.7 fails to evaluate the impact of helicopter noise and spectator boat noise on wildlife species. [A-NPS2-94]
- Use of Alcatraz will be heavily conditioned by the NPS, and specific event impacts must be provided. [A-NPS2-168]
- Sensitive species that require in-depth analysis include the western snowy plover in the Crissy Wildlife Protection Area and the fork-tailed damselfly near Fort Point. [A-NPS2-175]
- Please ensure that the impacts of light, noise, and human activity on Crissy Field and Fort Mason resources are analyzed. Propose adequate mitigation measures. [A-NPS2-178, A-NPS2-187]
- Mitigation measures should be carried out effectively, and the EIR should describe funding sources for materials and staffing. [O-ACEC-274]
- The EIR does not address potential impacts on Angel Island. [O-ACEC-277]
- The EIR should discuss potential impacts on the sensitive vegetation on the west slope of Yerba Buena Island. [O-ACEC-278]
- Section 5.14.1.1 should include a description of the biodiversity of the project location. [O-ACEC-279]
- The EIR should note that heavy visitation of Angel Island can cause erosion. [O-ACEC-288]
- The EIR should specifically discuss the effect of crowds on Franciscan manzanita at Inspiration Point and note that Caspian terns breed at Pier 64. [O-ACEC-291]
- The EIR should consider existing staffing levels at Alcatraz when establishing a baseline for visitation to give an accurate projection for staffing levels needed to protect potentially affected habitat. [O-ACEC-293]
- The EIR should not group wading birds such as herons and egrets with flying hunters such as terns, and should separately analyze impacts on wading birds. [O-ACEC-294]
- The EIR must address the impacts of helicopters on habitat. [O-ACEC-295]

- The EIR should clarify how loss of nesting habitat at Pier 98 is less than significant. [O-ACEC-306]
- Golden Gate Audubon Society requests that the EIR (1) better assess impacts on wildlife, (2) describe mitigations that are verifiable and not speculative, and (3) better assess cumulative impacts. [O-GGAS1-03]
- The EIR should analyze the impacts of spectator boats on bird use of open water. [O-GGAS2-09]
- The long-term development impact analysis for upland biological resources does not discuss possible removal of trees. [O-MAS-09]
- The EIR should analyze the impacts of spectator viewing stands. [O-MAS-10]
- There will be heavy visitor use affecting biological resources in southern Marin County. [A-MCCDA-09]
- The EIR fails to mitigate impacts to Alcatraz cormorants, black-crowned night heron, and snowy egret. [O-WW-44, O-WW-45]

Response BIU-4

A variety of comments addressed the way impacts were identified and analyzed in the EIR. Many of these comments concerned the labeling of impacts slightly differently from what the commenter expected, lack of discussion of impacts on a larger number of animals, deferral of impact analysis until a later time, or underestimation of the effects of disturbance.

With respect to Comment A-NPS2-94, boat noise is evaluated as a disturbance; as stated in Chapter 5.14, Section 5.14.3.3, page 5.14-37, "In the Central Bay, increased boat traffic associated with the races to and from the race sites to marine facilities onshore could have a negative effect." The EIR determined that Mitigation Measure M-BI-4a (Restrictions on Spectator Craft within Race Course Boundaries and Mitigation) and Mitigation Measure M-BI-4b (Offshore Buffers for Breeding Birds and Snowy Plover) would be adequate to reduce the significance of race-related boat noise (see EIR page 5.14-39).

With respect to Comments A-NPS2-94 and O-ACEC-295, aircraft, especially helicopters, are more of an issue for wildlife species, and this issue was addressed during the project planning stage. Chapter 3, Project Description, Section 3.4.3, footnote 29 on page 3-50 states as follows: "To protect sensitive species at Alcatraz, flight restrictions surrounding the island would be enforced in the air space, and helicopters would not be permitted within 1,000 feet (laterally and/or horizontally) of the island. This air space restriction distance of 1,000 feet would also be applied for flight patterns above Crissy Field." The 1,000-foot buffer is consistent with practices of the United States Coast Guard, which requires regularly scheduled coastal patrols to be flown at or above 1,000 feet in sensitive wildlife areas (United States Coast Guard Air Operations Manual). In addition, the 1,000-foot buffer is supported by research on bird disturbance responses to aircraft, especially helicopters. For example, Rojek et.al. (2007) observed that common murres (*Uria aalge*) at nesting colonies in the central California coast and San Francisco Bay region flushed in response to aircraft, and that helicopters appeared to cause disturbances at altitudes higher than those of planes; mean flushing altitude of helicopters was 751 feet.[2]

In response to Comment A-NPS2-168: the restrictions considered necessary to mitigate effects of activities on Alcatraz are covered under Mitigation Measure M-BI-4e (Protection for Colonial Breeding Birds on Alcatraz, Chapter 5.14, Section 5.14.3.3, page 5.14-40).

Regarding Comments A-NPS2-178 and A-NPS2-187, the EIR analyzes the impacts of light, noise, and other activities on Crissy Field and Fort Mason biological resources in Section 5.14. Sensitive species identified in Comment A-NPS2-175 are addressed in the EIR under the discussion for the Crissy Wildlife Protection Area in Section 5.14.3.3. The forked-tail damselfly would be protected as part of the protection of wetlands under Mitigation Measure M-BI-3 (Signage at Wetland Sites). The western snowy plover and Crissy Marsh area would be protected by Mitigation Measure M-BI-1c (Protecting Crissy Beach Wildlife Protection Area), which would require fencing, monitoring, and limitations on light and sound (see EIR, Chapter 5.14, Section 5.14.3.3).

Comment O-ACEC-277 is correct in noting that the EIR does not expect significant impacts on Angel Island. The number of visitors to Angel Island is constrained in large part by the capacity and scheduling of the ferries. Additionally, the distance from Angel Island to the primary race area under the AC34 Project Variant (see Chapter 11, Figure 11-1), located predominantly south of Alcatraz, about 2 miles distant from the south end of Angel Island, would reduce the quality of the viewing and could reduce the number of estimated spectators from what was presented in the Draft EIR. Nevertheless, the small wetland on Angel Island would be protected, and the mitigation for sensitive plants would allow for additional fencing and/or signing. Mitigation Measure M-BI-1b (Chapter 5.14, Section 5.14.3.3, page 5.14-31) states: "The project sponsor will work closely with the NPS and the California Department of Parks and Recreation (CDPR) to develop a detailed strategy for protecting plant populations."

In response to the biology portion of Comment O-ACEC-278: the west side of Yerba Buena Island is adequately protected through Mitigation Measure M-BI-2 (Signage at Sensitive Natural Community Areas; "No Spectator" Zone on Yerba Buena Island, Chapter 5.14, Section 5.14.3.3, page 5.14-34).

As indicated in Comment O-ACEC-279, the EIR acknowledges the importance and uniqueness of the Central Bay. See Chapter 5.14, Section 5.14.1.2, pages 5.14-2 to 5.14-3.

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[2] Rojek, N.A., M.W. Parker, H.R. Carter, G.J. McChesney, Aircraft and Vessel Disturbances to Common Murres *Uria Aalge* at Breeding Colonies in Central California, 1997-1999, Marine Ornithology 35: 61-69, 2007.

Comment O-ACEC-288 raises concerns about erosion at Angel Island. This issue is not likely to be significant because all of the spectator areas are relatively level with low potential for erosion. The only possible exception would be in the Marin Headlands below Conzelman Road, and access here is likely to be limited to protect the habitat of the Mission blue butterfly.

Comment A-MCCDA-09 is concerned with heavy visitor use in various areas in southern Marin County. The EIR does not anticipate heavy use in this area (excluding the Marin Headlands and Fort Baker) because of the distance (several miles) from most of the race activity. Please see Chapter 11, Figure 11-1, showing the primary race area that would be used under the AC34 Project Variant. The primary race area is located farther south (i.e., closer to San Francisco and further from Marin County) than the area identified in the Draft EIR.

Comment O-ACEC-274 is concerned that mitigation measures are carried out effectively, and that the EIR must stipulate funding sources for materials and staffing. The commenter is referred to Section 12.2, Response GEN-2, for funding issues, and is directed to all mitigations under Mitigation Measure M-BI-1 (EIR, Chapter 5.14, Section 5.14.3.3, page 5.14-32). These show that AC34 project sponsors have and will continue to work closely with the NPS to establish fencing, signage, and area closures as appropriate in spectator areas, and, as determined necessary by the NPS, assign a reasonable and sufficient number of resource monitors to be placed at areas of greatest spectator density. The monitors would be trained in both the sensitive species of the area and in the proper manner to interact with and inform spectators. Law enforcement personnel would provide additional support as needed.

In response to Comment O-ACEC-291: the EIR does not anticipate heavy use of Inspiration Point because this area is too far from the race area along the San Francisco waterfront to become a desirable viewing site. As shown in Figure 5.1-1, the location of Inspiration Point is predicted to have a low visibility of the race area due to its distance from and topographical orientation relative to the race area. While it is acknowledged that Inspiration Point offers views of the Bay, it is expected that views of the AC34 race events from this location would be too distant and obscured by landscaping and topography for this to be a desirable viewing area. Table 5.14-1 already notes that the Caspian terns nest at Pier 64.

In response to Comment O-ACEC-293: the EIR considers the portrayal of Alcatraz visitation to be reasonably accurate since AC34-related programs would be private and not open to the public. It is not standard practice for a CEQA analysis of biological impacts to make a disclosure of the workforce needed to implement mitigation measures, but the analysis must meet the standard that measures are feasible and effective. To some extent, it is anticipated that staffing numbers would be developed at a later time in response to actual conditions. The EIR mitigation program assumes that law enforcement personnel would provide additional support to the resource monitors as needed.

In response to Comment O-ACEC-294: the EIR text in Chapter 5.14, Section 5.14.3.3, page 5.14-29 is correct as written. The point to be made here is about water depth in relation to foraging, and it is true that the terns, herons, and egrets all forage in areas shallower, generally speaking, than the waters of the Central Bay. However, "still-fishing" habitat for herons and egrets is limited in the project area but substantial elsewhere in the Bay (about 200,000 acres of shallow subtidal habitats and tidal flats[3]).

In response to Comment O-ACEC-306: the impact is less than significant because the proposed fill removal at Pier 98 would be limited to the remnant piles in the Bay and would not remove the terminal itself (see EIR Chapter 3, page 3-111). It is assumed that pier structures would still be available to the oystercatcher.

Comment O-GGAS1-03 requests that the EIR better assess impacts on wildlife. The EIR does not attempt to identify all the species that would be affected by the proposed project. A complete list of all species using the project area is beyond the scope or intent of an EIR, as provided by CEQA Guidelines Section 15151, which states that "An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible." The EIR focuses its analysis on "special-status" species, which may be considered those most likely to experience effects that breach levels of significance described in EIR Chapter 5.14, Section 5.14.3.1, page 5.14-24. There is no deferral of mitigation as defined by CEQA Guidelines Section 15126.4. The EIR (Chapter 5.14, Section 5.14.3.3) relies in part on signage, fencing, education, and resource monitors as necessary. The full details of all mitigations would be developed following project approval and EIR certification. These methods are standard practice and have been a mainstay of public land management for generations. The responsibility for implementing mitigation is assigned as part of the required Mitigation Monitoring and Reporting Program (CEQA Guidelines Section 15097).

Regarding Comment O-GGAS2-09, the analysis in the EIR considered that the risk of significant impact due to the harassment that occurs when birds fly out of boat traffic is much greater than the risk of actual collisions. See the impact discussion under "Movement of Native Wildlife Species" in Chapter 5.14, Section 5.14.3.3, page 5.14-37. Mitigation Measure M-BI-4a (Restrictions on Spectator Craft within Race Course Boundaries; Chapter 5.14, Section 5.14.3.3, page 5.14-39) would require boats to be stationary, or near stationary, during race events, when the highest level of boat activity would otherwise be expected.

Comment O-MAS-09 asserts that while Mitigation Measure M-LT-BIa mentions tree removal, there is no impact discussion of possible tree removal. This mitigation measure is designed to encompass a broad range of yet unknown future development possibilities that could result from the Event Authority's future long-term development rights. As described in EIR Section 5.1 and Section 12.6 of this Comments and Responses document, site-specific, project-level CEQA review will be required if or when a specific development proposal for any of these sites is submitted to the City. Details on tree removal, if any, would be analyzed at that time and appropriate mitigation measures identified.

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[3] San Francisco Bay Area Wetlands Ecosystem Goals Project, Baylands Ecosystem Species and Community Profiles: Life histories and environmental requirements of key plants, fish and wildlife, P.R. Olofson, editor, San Francisco Bay Regional Water Quality Control Board, Oakland, CA, 2000.

Comment O-MAS-10 requests that the EIR analyze spectator viewing stands. Spectator viewing stands/platforms would be temporary structures and would not be placed in sensitive habitats or vegetation, which would be marked and/or fenced. Therefore, there would be no impacts on biological resources associated with spectator viewing stands.

Comments O-WW-44 and O-WW-45 state that the EIR does not adequately disclose the nature and extent of the impacts on bird species on Alcatraz Island. As mentioned previously, Alcatraz Island would not have any programmed event activities other than the use of existing facilities for special events that may take place in the evening. It is impossible to determine all facets of the impacts, because these vary with time of year, species, and of course the nature of the disturbance, and it can be difficult to extrapolate from research conducted elsewhere. But generally, professional judgment is that birds may take flight, leaving nests unattended. At minor levels, this can be very temporary with no ill effect or, if the disturbance is severe enough, it can result in nest abandonment. The loss of a single nest under these circumstances would be considered potentially significant. Mitigation Measure M-BI-4b (Offshore Buffers for Breeding Birds and Snowy Plover) and Mitigation Measure M-BI-4e (Protection for Colonial Breeding Birds on Alcatraz) are designed to minimize such effects.

12.19.6 Upland Biological Resources Mitigation [BIU-5]

This topic is further subdivided into the following sub-topics:

- BIU-5a, General Mitigation
- BIU-5b, Buffers as Mitigation

BIU-5a, General Mitigation – Summary of Issues Raised by Commenters

Responses BIU-5a and BIU-5b address all or part of the following comments:

A-NPS2-105
A-NPS2-110 to -112
A-NPS2-115
A-NPS2-117 to -119
A-NPS2-121
A-NPS2-124 to -127
A-NPS2-139
A-NPS2-172
O-ACEC-296 to -302
O-ACEC-304
O-ACEC-305
O-ACEC-307, -308
O-FOTE-05
O-GGAS1-04
O-GGAS2-11
O-GGAS2-12, -13
O-GGAS2-16
O-GGAS2-17
O-GGNPC2-08, -14
O-MAS-07
O-MAS-08
O-MCL-05
O-WW-42
O-WW-43
O-WW-46
O-WW-47

- Mitigation for rare plants would be more likely to protect the tree lupine moth. [A-NPS2-105]
- Bank swallow and lessingia should be removed as listed species. [A-NPS2-110]
- On page 5.14-30, the NPS may not be able to prevent significant impacts on Mission blue butterfly habitat at Fort Baker and Marin Headlands. [A-NPS2-111]
- Mitigation Measure M-BI-1c fails to mention the impacts of race events. [A-NPS2-112]

- The NPS will not allow night lighting at the WPA or fireworks on Alcatraz. [A-NPS2-115]
- The NPS would use different language on signage at wetlands sites. [A-NPS2-117]
- The NPS suggests an additional source of information on cormorant rafting and foraging flocks. [A-NPS2-118]
- Page 5.14-38 should discuss the effects of increased predation of ravens on nesting western gulls. [A-NPS2-119]
- Protection for waterbirds would also protect harbor seals. [A-NPS2-121]
- The impacts of the event on some species could extend for many years after the event is over. [A-NPS2-124]
- Night lighting should be fully shielded and downward cast. [A-NPS2-125]
- The NPS does not allow tree removal after January 1. [A-NPS2-126]
- The City has new draft guidelines for buildings and protecting migratory birds. [A-NPS2-127]
- Lessingia should be removed as a listed species. [A-NPS2-139]
- The NPS intends to close the marsh area at Crissy Field and requires additional fencing at the marshes and the Doyle Drive improvements near Fort Point. [A-NPS2-172]
- In Mitigation Measure M-BI-1a, the Mission blue butterfly is *Aricia icarioides missionensis.* [O-ACEC-296]
- The biological mitigation measures should clarify the meaning of "working with" outside agencies and include plans for funding. [O-ACEC-297]
- Mitigation Measure M-BI-1e should also apply to Alcatraz. [O-ACEC-298]
- The coast live oak woodland on the western slope of Yerba Buena Island is the most at risk, and signage is unable to protect this western slope. [O-ACEC-299, O-ACEC-300]
- Mitigation Measure M-BI-3 should provide additional detail about the efficacy of signage. [O-ACEC-301]
- The EIR should evaluate potential impacts of spectators at several locations on Yerba Buena Island. [O-ACEC-302]
- More detail on monitoring and signage is requested. [O-ACEC-304]
- The EIR should justify its claim that herons and egrets have adequate alternate foraging locations. [O-ACEC-305]
- The EIR should incorporate the pending city ordinance on bird-safe buildings. [O-ACEC-307]
- The EIR should explain its claim that bird strikes would not occur in future-long term development areas at heights above 40 feet. [O-ACEC-308]

- The EIR should specify how migrating birds in the Central Bay would be protected. [O-FOTE-05]
- Mitigation measures rely primarily on signage and educational efforts, which will not be effective to reduce impacts. The EIR fails to assess the efficacy of mitigation measures or their impacts on biological resources. [O-GGAS1-04, O-GGAS2-11]
- The City cannot commit the NPS to monitoring biological impacts, and the EIR should make any monitor findings publicly available. In addition, the City does not have jurisdiction over lands it plans to install signage on, and signage is not a highly effective mitigation measure. [O-GGAS2-12, O-GGAS2-13]
- Several of the provided mitigation measures will not adequately protect Bay wildlife because they depend on future plans or feasibility. [O-GGAS2-16]
- Mitigation Measures M-BI-6a and M-BI-6b should include a monitoring component to assess their adequacy. [O-GGAS2-17]
- The EIR should protect Crissy Field dune plants and the Crissy Field Overlook. [O-GGNPC2-08, O-GGNPC2-14]
- Angel Island wetlands should be protected by enforcement staff, not signage. [O-MAS-07]
- The EIR should address impacts on rafting birds and should provide enforcement staff to protect habitat instead of signage. [O-MAS-08]
- Enforcement is needed in addition to fencing to protect habitat in Marin Headlands on race days. [O-MCL-05]
- Mitigation Measure M-BI-1e is too generalized for the public to judge its adequacy. [O-WW-42]
- Instead of requiring Mitigation Measures M-BI-1a, M-BI-1b, and M-BI-1c, the EIR merely requires a future strategy to be developed with the NPS, deferring specific analysis and depriving the public of informed oversight. [O-WW-43]
- There is no basis on which to conclude that limiting public visitation to Alcatraz would reduce impacts on nesting bird colonies. [O-WW-46]
- Existing high levels of noise disturbance, combined with the project, would result in raptor nest loss or abandonment. [O-WW-47]

Response BIU-5a

Mitigation for the AC34 event impacts relies heavily on impact avoidance measures, most commonly fencing and signage or disturbance "buffers" (i.e., distances around a sensitive resource where certain race and spectator activities are limited). Response BIU-5a answers comments on mitigation for fireworks and night lighting, whether mitigation is sufficient to avoid long-term impacts, effective enforcement mechanisms for air and water traffic mitigations, and whether measures have had prior agency approval. The comments that involve buffers are addressed separately under Response BIU-5b below.

Comment O-GGAS1-04 broadly questions the sufficiency of the mitigation measures and states that they rely primarily on signage and educational efforts. The mitigation program considers signage and educational efforts as standard practices in land stewardship that, while not perfect, can reduce impacts, especially if augmented by resource monitors and enforcement staff as needed. For example, refer to Mitigation Measure M-BI-1 (EIR, Chapter 5.14, Section 5.14.3.3, pages 5.14-30 to 5.14-33) for detailed description of the protection requirements.

Comment O-GGAS2-11 makes a similar point, i.e., that the Draft EIR fails to realistically assess the efficacy of fencing or the impacts on biological and aesthetic resources due to fencing. Please refer to the response to Comment O-GGAS1-04 above. In addition, note that most fences would be temporary, and no permanent biological or aesthetic effects of fencing *per se* are expected.

Comment A-NPS2-105 rightly points out that Mission blue butterfly mitigations would be in Marin County, not San Francisco, and suggests that for the tree lupine moth, mitigations for rare plants would be effective. The EIR text at the top of page 5.14-12 is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> The **tree lupine moth** is a federal ~~special~~ species of concern and is found at several locations south of the Golden Gate Bridge. Coastal sand dunes are typically associated with the moth's larval host plant, *Lupinus arboreus*. The project would not remove any woody plants, and these areas would be further protected by exclusion fencing described in ~~**Mitigation Measure M-BI-1a** (Protecting Sensitive Areas for Mission Blue Butterfly~~ Mitigation Measure M-BI-1b (Protecting Listed and Other Special Status Plant Areas).

This revision does not change the analysis or conclusions presented in the EIR.

In response to Comment A-NPS2-110: the bank swallow is considered in the EIR text but excluded as part of the EIR analysis, Chapter 5.14, Section 5.14.3.3, page 5.14-28. However, with respect to Comments A-NPS2-110 and A-NPS2-139, lessingia is retained due to the likelihood of increased visitor use (i.e., visitors displaced from the Crissy Field area during race events, across to the Baker Beach area) in the proximity of a San Francisco lessingia recovery and enhancement site.[4]

Comment A-NPS2-111, regarding the uncertainty in the ability to prevent people from entering Mission blue butterfly habitat at Fort Baker and the Marin Headlands, is noted.

The information requested in Comment A-NPS2-112 regarding impacts of race events is contained in both Mitigation Measures M-BI-1c and M-BI-1d.

In response to Comments A-NPS2-115 and O-ACEC-298, the EIR text on page 5.14-32, first paragraph, is revised as follows (new text is underlined):

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[4] United States Fish and Wildlife Service, Recovery Plan for Coastal Plants of the Northern San Francisco Peninsula. United States Fish and Wildlife Service, Portland, Oregon. xvi + 304 pp., 2003.

Mitigation Measure M-BI-1e: Restrictions on Fireworks and Night Lighting

> In consultation with the NPS, fireworks or cannon fire will be limited to protect plovers and nesting birds on Alcatraz from harassment. Such restrictions are likely to limit where such activities are staged, or stipulate maximum allowable noise (decibels) at the Crissy Field WPA or at Alcatraz. Where exterior lights are to be left on at night, the AC34 project sponsor shall install fully shielded and downward cast lights to contain and direct light away from habitat, the sky, and Bay waters.

This revision does not change the analysis or conclusions presented in the EIR.

Comment A-NPS2-117 regarding different language on signage and Comment A-NPS2-118 regarding an additional source of information on cormorant rafting and foraging flocks in San Francisco Bay are noted.

Comment A-NPS2-119 requests discussion of increased predation of ravens on nesting western gulls, but exposure to predation is implicit in the language used in EIR, Section 5.14, Impact BI-4, on page 5.14-37, which discusses impacts of the AC34 events on movement of native wildlife species. The level of detail in the EIR is sufficient to support the significance determination and the identified mitigation measure, so no additional discussion is warranted.

Comment A-NPS2-121 regarding waterbird protection also protecting harbor seals is noted.

Comment A-NPS2-124 asserts that long-term impacts may be severe and that nesting colonies on Alcatraz and disturbed Mission blue butterfly habitat may take years to recover. The EIR assumes as part of the baseline that colonial birds have been exposed to maritime traffic for many years. This degree of acclimation, a phenomenon noted by researchers in nest disturbance, helps to make the buffers effective. Events on Alcatraz itself do pose a threat and are dealt with as part of Mitigation Measure M-BI-4e (Protection for Colonial Breeding Birds on Alcatraz) on EIR page 5.14-40. Lupines, which are the habitat of the butterfly, are very disturbance-tolerant – in fact require a certain level of disturbance – and would quickly recover.

Comment A-NPS2-125 regarding night lighting is fully consistent with Mitigation Measure M-BI-1e (Restrictions on Fireworks and Night Lighting) on EIR page 5.14-32.

With respect to Comment A-NPS2-126 regarding restrictions on tree removal, no trees would be removed from NPS land.

With respect to Comments A-NPS2-127 and O-ACEC-307 regarding the draft City guidelines on bird-safe buildings, the measures in the EIR are very similar to the guidelines, and the EIR assumes that the project would be implemented in compliance with all applicable ordinances and regulations.

Comment A-NPS2-172 suggests fencing in areas of biological sensitivity. The EIR recommends this provision as Mitigation Measures M-BI-1a, M-BI-1b, and M-BI-1c on pages 5.14-30 to 5.14-31.

In response to Comment O-ACEC-296 regarding the scientific name for Mission blue butterfly: the text of Mitigation Measure M-BI-1a is correct as written, though slightly confusing. *Lupinus albifrons* refers back to the name of the characteristic habitat, not the species.

Comment O-ACEC-297 references all mitigations under Mitigation Measure M-BI-1 (EIR, Chapter 5.14, Section 5.14.3.3, page 5.14-32), asking how the proponent would work with the cooperating state and federal agencies. As indicated in these mitigations, additional information (e.g., actual fence locations and types, sound limits in sensitive habitats, etc.) would be solicited from the agencies to add specificity to implementation of the mitigations. Funding for mitigation measures is generally outside the scope of CEQA. The lead agency and the project sponsor are legally required to carry out the measures. Please see Response GEN-2 for additional discussion of funding issues.

Comments O-ACEC-299 and O-ACEC-300 suggest that the coast live oak woodland is the habitat type at the most risk from visitor impacts at Yerba Buena Island. On page 5.14-32, the EIR identifies the presence of sensitive natural communities on Yerba Buena Island, and it was determined that signage would suffice to deter spectators on Yerba Buena Island. The island is a mile from the extreme eastern end of the primary race area and would not be a prime spectator area since the majority of the island has sloped terrain with limited access.

Comments O-ACEC-301 and O-ACEC-304 reference all mitigations under Mitigation Measure M-BI-1 (EIR, Chapter 5.14, Section 5.14.3.3, page 5.14-32), asking how the proponent can adjust measures as needed under the Fencing and Signage Plan. The AC34 project sponsors have and will continue to work closely with the NPS to establish fencing, signage, and area closures as appropriate in spectator areas, and, as determined necessary by the NPS, assign a reasonable and sufficient number of resource monitors to be placed at areas of greatest spectator density. The monitors would be trained in both the sensitive species of the area and in the proper manner to interact with and inform spectators. Law enforcement personnel would provide additional support as needed.

In response to Comment O-ACEC-302: the EIR recognizes the value of Yerba Buena Island, which is why the mitigation measure is designed expressly to deter visitors (see Mitigation Measure M-BI-2: Signage at Sensitive Natural Community Areas; "No Spectator" Zone on Yerba Buena Island, on EIR page 5.14-33). See also response to Comments O-ACEC-299 and O-ACEC-300.

Comment O-ACEC-305 asks that the EIR justify the assumption that herons and egrets have adequate alternate foraging locations, analyze the potential to identify prime egret foraging areas, and provide a buffer zone. It is beyond the scope of the EIR to analyze all impacts on all species, including egrets, which only acquire special status when a nesting colony is at risk. However, there *are* alternate foraging locations through San Francisco Bay, about 200,000 acres of shallow subtidal habitats and tidal flats.[5]

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[5] San Francisco Bay Area Wetlands Ecosystem Goals Project, Baylands Ecosystem Species and Community Profiles: Life histories and environmental requirements of key plants, fish and wildlife, P.R. Olofson, editor, San Francisco Bay Regional Water Quality Control Board, Oakland, CA, 2000.

Comment O-ACEC-308 questions whether bird collisions occur above 40 feet. Bird strikes are the most common within the first few stories of the ground, and one of the assumptions for long-term development on the piers is that the maximum height of the buildings would be 40 feet, consistent with existing zoning (see EIR page 3-92).

Comment O-FOTE-05 requests that the EIR specify how migrating birds in the Central Bay would be protected. The EIR recognizes that the Bay is an important habitat for migrating and resident birds. As noted above in the response to Comments O-ACEC-283, O-ACEC-285, and O-ACEC-286, the EIR did not develop comprehensive bird lists. The EIR's primary responsibility is to identify sensitive wildlife (as opposed to all wildlife) because impacts on these would be significant under CEQA. The EIR considered impacts on rafting birds (see discussion under "Movement of Native Wildlife Species" on EIR page 5.14-37) and concluded that the impacts would not be significant, given that rafting is predominantly a winter behavior.

In response to Comments O-GGAS2-12 and O-GGAS2-13 regarding mitigation on NPS lands, please note that Mitigation Measure M-BI-1b (EIR Chapter 5.14, Section 5.14.3.3, page 5.14-32) states as follows: "The project sponsor will work closely with the NPS and the California Department of Parks and Recreation (CDPR) to develop a detailed strategy for protecting plant populations." The inclusion of fencing and fence monitoring was also suggested by the NPS, at a May 6, 2011 meeting of project and NPS staff (Michael Savidge and Daphne Hatch). While fencing has its own impacts, it has been a mainstay of resource protection on public lands for a very long time, and in this case, fencing would be temporary. The EIR mitigation program assumes that law enforcement personnel would provide additional support to the resource monitors as needed.

Comment O-GGAS2-16 makes several points, which are summarized here and responded to one at a time. First, the comment asserts that the reliance on a Water and Air Traffic Plan with the United States Coast Guard renders mitigations invalid because the Water and Air Traffic Plan was not included in the Draft EIR. The Water and Air Traffic Plan is currently being prepared and will provide additional detail regarding implementation of many of the mitigation measures, however, all of the mitigation measures identified in the EIR are designed to stand alone, independent of the implementations plans. The basic mitigation performance standards (size of buffer areas, for example) are clearly stated in the biological resources mitigation measures, as required under CEQA. See Section 12.6, Impact Overview, Response IO-4, for further discussion of the relationship between implementation plans and mitigation measures.

Second, the comment states that Mitigation Measure M-BI-4c (Protection for Breeding Birds on Piers and Associated Structures, EIR Chapter 5.14, Section 5.14.3.3, page 5.14-40) is weakened by wording that the Event Authority will, to the extent "feasible" avoid demolition of structures during the bird breeding season (March 1–August 1). The EIR text does not use the word "feasible." The avoidance of work in the nesting season is preferred, but the ultimately effective mitigation is avoiding active nests. For the 50-foot avoidance buffer, which the commenter finds indefensible, the measure suggests consultation with the California Department of Fish and Game to confirm the buffer's adequacy. Breeding birds on piers or buildings along a busy urban waterfront are likely more tolerant of disturbance than those nesting in natural settings, where avoidance distances would need to be larger.

Third, the comment states that there is a potential for collisions between wildlife and boats. The EIR addresses this concern on page 5.14-40, in Mitigation Measure M-BI-4a (Restrictions on Spectator Craft within Race Course Boundaries), which states: "As part of this effort, the plan shall include provisions and restrictions to minimize the movement of spectator boats and thereby minimize disruption of feeding or resting least terns and other birds. Specifically, this may include requiring spectator vessels to be either anchored or as stationary as possible, maneuvering only to maintain safe distances from other vessels within the boundaries of the race course when races are occurring."

In Comment O-GGAS2-17 concerning bird-glass window collisions, the commenter requests that a monitoring component be built into the bird-strike mitigation measures to assess their adequacy. The commenter's concern is acknowledged. However, the techniques proposed are not experimental. Similar programs have been adopted by Chicago, Toronto, and recently, San Francisco. The New York version cites several successful case-study applications of the measures.[6]

In response to Comments O-GGNPC2-08 and O-GGNPC2-14: the Crissy Field Overlook is considered part of the Crissy Field spectator venue, and it has additional native plant installations that should be protected along with the Crissy Marsh and Crissy Beach Wildlife Protection Area. Although the emphasis of the EIR is on sensitive natural communities (as opposed to simply native plants), because impacts on these would be significant under CEQA, the mitigation for plants is deliberately broadly written to encompass these areas. Mitigation Measure M-BI-1b on EIR page 5.14-32 states: "The project sponsor will work closely with the NPS and the California Department of Parks and Recreation (CDPR) to develop a detailed strategy for protecting plant populations." The principal protections are fencing, signage, and the presence of resource monitors, if necessary. The EIR assumes that there may be other vegetation areas that the NPS deems are important to protect, and the mitigation measure of fencing and signage could then be applied. See Section 12.2, General Comments, regarding funding issues.

With respect to Comment O-MAS-07 regarding Angel Island wetlands, the wetlands identified in the EIR are small and generally densely vegetated. The EIR considers signage sufficient in these cases to reduce impacts to less-than-significant levels.

Comment O-MAS-08 addresses several mitigation measures, expressing concern that the discussion of effects on movement of wildlife is too limited. The EIR concludes that the main concern is with general foraging and not with birds in "rafts," as that is principally a fall and winter phenomenon (see, for example, http://baynature.org/articles/jan-mar-2010/rafting-time-for-diving-ducks). The commenter also recommends that staff with authority be present to enforce the Alcatraz buffers as well as to inform the public about them. While this would be a primary objective of the resource monitors, and NPS enforcement staff would be available when needed on land, in-water activity monitoring would likely be more focused on advising boaters about the restrictions, rather than be dependent on an enforcement program for restricting otherwise legal activities.

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[6] New York City Audubon Society, Bird-Safe Building Guidelines, http://www.nycaudubon.org/home/BirdSafeBuildingGuidelines.pdf, May 2007.

Comment O-MAS-08 also addresses protection of colonial breeding birds on Alcatraz, and the commenter's concern is much the same regarding effectiveness of mitigations, but in this case the NPS has more authority. See Mitigation Measure M-BI-4e (Protection for Colonial Breeding Birds on Alcatraz) on EIR page 5.14-40, which states: "The AC34 project sponsor shall allow no event-related public visitation, special events, or construction activities to be carried out near the western cliffs used by breeding seabirds. NPS would likely require these or similar measures pursuant to their mission and obligations under federal law. If required by NPS, the project sponsor shall install durable visual barriers, such as shade cloth fastened to 2-by-4-inch welded mesh, prior to arrival of birds for pre-nesting (February 1)." As stated previously, only existing facilities would be used to host private special events on Alcatraz itself, and there would be no programmed events for the public.

Comment O-MAS-08 states that any construction during breeding season should be required to avoid disturbing nests and nest areas. This comment is consistent with Mitigation Measure M-BI-4c (Protection for Breeding Birds on Piers and Associated Structures) on EIR page 5.14-40. There would be no removal of trees as part of the project.

Comment O-MCL-5 regarding fencing is essentially the same as Mitigation Measure M-BI-1b (on EIR page 5.14-31), which states: "The project sponsor will work closely with the NPS and the California Department of Parks and Recreation (CDPR) to develop a detailed strategy for protecting plant populations." The San Francisco Planning Department will identify the responsibility for implementing the measure in the Mitigation Monitoring and Reporting Program (MMRP). The commenter's concern that enforcement is needed on race days is acknowledged. See Section 12.6, Impact Overview, for further discussion regarding enforcement.

Comment O-WW-42 asserts that Mitigation Measure M-BI-1e (Restrictions on Fireworks and Night Lighting) on EIR page 5.14-32 is too general and superficial. Light and noise are obvious disruptors of animal behavior, and the text is not a generalized mitigation. Lighting standards are clear and consistent with current practices. Noise is a factor that is more complex, but having, for example, a maximum noise level at the receptor sites, developed in consultation with the NPS, is unequivocal and as a result will influence the locations of fireworks. The NPS has observed the nesting colony on Alcatraz during fireworks displays, and that information can also ensure proper placement. In this sense the impact threshold becomes part of the event planning. Contrary to this assertion, the mitigation measure provides adequate specificity for informed decision-making.

Contrary to the assertion of Comment O-WW-43, the EIR does not stipulate a list of "potential" mitigation measures. The precise language in the mitigation measures (on EIR page 5.14-30) leaves no doubt that the stipulated measures would in fact be those used: "The project sponsor shall work with NPS to implement an appropriate combination of the following conservation measures to ensure that these areas will be avoided." In response to the commenter's complaint that "where mitigation measures are within the jurisdiction of another agency, the responsible agency must submit mitigation for review": in fact, the measures proposed were suggested by the NPS, at a May 6, 2011 meeting of project and NPS staff (Michael Savidge and Daphne Hatch), and the EIR essentially reiterates measures recommended by the NPS.

Comment O-WW-46 specifies that, on Draft EIR page 5.14-40, there is no basis upon which to conclude that limiting public visitation at Alcatraz would be sufficient to protect the nesting bird colonies. In fact, the NPS has paid close attention to the colony over many years, and its responses to disturbance (Hatch, pers. comm.), and therefore the NPS decision on fencing and signage at this location will be based on the best professional judgment. Citing Draft EIR pages 5.14-16 and 5.14-29, Comment O-WW-47 questions the conclusion that nesting raptors would not experience nest loss or abandonment, primarily due to the high ambient levels of noise. The effects of noise and human presence are not cumulative on an animal that has experienced these phenomena as background; they have acclimatized to their local environment. It is not unreasonable to assert that disturbance-sensitive species simply do not nest there (i.e., the effect of the disturbance has therefore already occurred). Studies have been done on noise levels occurring now in response to the construction of the Presidio Parkway, and no firm correlation between bird populations observed and noise levels has been established.[7]

BIU-5b, Buffers as Mitigation – Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-113, -123
A-NPS2-114, -120
A-NPS2-122
A-NPS2-165
O-CNPS-05
O-FOTE-06
O-GGAS2-14, -15
O-MAS-05, -06

- The NPS would not agree to reduced buffers within the Crissy Field WPA, and the NPS will not allow a reduced buffer for aircraft. [A-NPS2-113, A-NPS2-123]
- The EIR must add detailed protection for Alcatraz waterbirds. Alcatraz seabirds are sensitive to disturbance and should be protected by offshore buffers and airspace restrictions. [A-NPS2-114, A-NPS2-120, A-NPS2-165]
- Impacts on Alcatraz waterbirds may still be significant despite mitigation. In addition, the EIR fails to consider the impacts of the race events themselves on waterbirds. [A-NPS2-122]
- The EIR should provide information on seasonal needs of species for protective buffers. [O-CNPS-05]
- The EIR does not specify which agency would enforce the no-boating buffer around Alcatraz. [O-FOTE-06]

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[7] Environmental Science Associates, *Presidio Parkway Project: Avian Noise Monitoring – First Quarter 2010 Report,* prepared for Arup—Parsons Brinkerhoff Joint Venture, May 2010.

- GGAS disagrees with the claim that Alcatraz could host an event of this size without breaching existing wildlife impact thresholds. In addition, Mitigation Measure M-BI-4e is too vague. [O-GGAS2-14]
- The EIR must propose more effective mitigations, supplementing fencing with outreach, education, and enforcement security. Impacts and implementation of the mitigation measures themselves must also be described. [O-GGAS2-15]
- Enforcement staff should be provided to supplement signs and fences, and more detail on protecting endangered plants and protecting roosting birds should be provided. [O-MAS-05, O-MAS-06]

Response BIU-5b

These comments raise questions about the details, effectiveness, and enforcement of buffer zones around sensitive resources.

Comments A-NPS2-113, A-NPS2-114, A-NPS2-120, A-NPS2-123, and A-NPS2-165 all express NPS concerns regarding the use of buffers as mitigation and indicate that the NPS would not agree to a "reduced buffer" within the offshore portion of the Crissy Field Wildlife Protection Area (WPA) or for aircraft. The EIR discusses impacts due to race event activities—including helicopter overflights and spectator boats—and all aspects of mitigation concerns mentioned in the comment for offshore buffers are contained in Mitigation Measure M-BI-1c (Protecting Offshore Portion of the Wildlife Protection Area [WPA]) on page 5.14-31, Mitigation Measure M-BI-4b (Offshore Buffers for Breeding Birds and Snowy Plover) on page 5.14-39, and Mitigation Measure M-BI-4a (Restrictions on Spectator Craft within Race Course Boundaries) on page 5.14-39. Mitigation Measure M-BI-1d and Mitigation Measure M-BI-4b make it clear that no reduction in buffers would be made without NPS approval. The EIR recognizes the biological resources referenced in the comments (EIR, Chapter 5.14, Section 5.14.1), and applies mitigations similar to those proposed (EIR, Chapter 5.14, Section 5.14.3).

Comment O-CNPS-05 requests additional information on buffer distances necessary to protect birds. The EIR sets buffer distances for sensitive resources for Alcatraz and Crissy Beach. There is insufficient evidence to know exact "safe" distances as they vary by species, season, and type of disturbance; the scientific literature is extensive on such issues but it is difficult to directly extrapolate from it. Mitigation Measure M-BI-4b (Offshore Buffers for Breeding Birds and Snowy Plover) addresses this in a manner (a 100-yard offshore buffer) that is consistent with authors such as Chatwin (2010) who created a set of boating guidelines based on her research, which include three classes of setback distances: 98 feet for high-traffic areas where birds have habituated to existing watercraft operations, 164 feet for all roost and nesting sites, and 230 feet for harlequin duck (*Histrionicus histrionicus*) and Brandt's cormorant (*Phalacrocorax penicillatus*) roosts.[8]

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[8] Chatwin, T.A., "Set-back Distances to Protect Nesting and Roosting Seabirds off Vancouver Island from Boat Disturbance," Thesis for Master of Science in Environment and Management, Royal Roads University, 2010.

Comment O-FOTE-06 expresses concern regarding enforcement of the buffer zone around Alcatraz. It is expected that the Water and Air Traffic Plan will provide details of operations within the race area, i.e., the full details of all mitigations would be developed later in the process. Mitigation enforcement is generally assured through required compliance with the Mitigation Monitoring and Reporting Program (CEQA Guidelines Section 15097), which contains all mitigations and assigns primary responsibility for their execution. See responses in Section 12.6, Impact Overview, for further discussion of enforcement of mitigation measures.

With regard to Comment O-GGAS2-14, the EIR does say that "[t]he extant environment for biological resources suggests that this is an area that could theoretically host an event the size of the America's Cup without breaching disturbance or impact thresholds that plants and wildlife already experience." The quote is taken out of context in the comment, however. The next two sentences (EIR page 5.14-27) state: "While the influx of thousands of visitors to spectator sites and on-water traffic would have the same indirect impacts of any special event, however, it would be on a qualitatively larger scale due to the prolonged schedule of AC34 events. That level of disturbance requires a closer analysis." The comment also asserts that Mitigation Measure M-BI-4e (Protection for Colonial Breeding Birds on Alcatraz; EIR page 5.14-40) is too vague to provide adequate protection for breeding birds on the island. That measure deals with special events, is supported by a broader measure to keep boats at a safe distance offshore (Mitigation Measure M-BI-4b: Offshore Buffers for Breeding Birds and Snowy Plover), and allows for some flexibility in placement of the fence, which in this case comprises a visual barrier as well as a structure. The actual fence layout would be detailed in the Fencing and Signage Plan, and its position would essentially define the word "near" and the extent of allowable activities.

Comment O-GGAS2-15 states that proposed mitigation measures, mainly fencing, are wholly inadequate, pointing out that Crissy Field is relatively quiet and dark at night, allowing the plovers and other wildlife to rest in relative peace. The EIR addresses impacts associated with both night lighting and noise at night and identifies Mitigation Measure M-BI-1e (Restrictions on Fireworks and Night Lighting, EIR page 5.14-32), which would reduce these impacts to less-than-significant levels. The subject of a performance bond recommended by the commenter — to be funded prior to the event—is beyond the scope of this analysis, but there could be future agreements between the project sponsors and the NPS outside of the CEQA process. See Section 12.2, General Comments, for further discussion of funding issues.

Comment O-GGAS2-15 further doubts the efficacy of Mitigation Measure M-BI-4b (Offshore Buffers for Breeding Birds and Snowy Plover). For the technical sources for the size of the buffers, see the response to Comment O-CNPS-05 above. For enforcement, note that the Water and Air Traffic Plan would also establish effective enforcement mechanisms for traffic controls in the airspace and water space during the race events for AC34 (EIR, Chapter 3, page 3-88). The basic CEQA standards of accountability and responsibility lie in the provisions of CEQA itself. Mitigation implementation is ultimately required through compliance with the Mitigation Monitoring and Reporting Program (CEQA Guidelines Section 15097), which contains all mitigations and assigns primary responsibility for their execution. See responses in Section 12.6, Impact Overview, for further discussion of enforcement of mitigation measures.

Comments O-MAS-05 and O-MAS-06 address specific impacts and mitigation measures. Regarding Mitigation Measure M-BI-1a (Mission Blue Butterfly Habitat) on EIR page 5.14-30, the commenter questions the efficacy of fencing and recommends that enforcement staff be available to back up the monitors. The EIR mitigation program assumes that law enforcement personnel would provide additional support to the resource monitors as needed. The commenter has misread Mitigation Measure M-BI-1b (Endangered Plants), which contains the same fencing, signage, and monitoring strategy as that for Mission blue butterfly. Regarding Mitigation Measure M-BI-1d (Offshore Protection Area), the commenter requests extension of buffer zones to the Marin shoreline. The EIR considers these areas too remote from the primary race area, which at the closest point is 1 mile away, to require the same buffers as Alcatraz and Crissy Beach. Also, the commenter requests an analysis of all birds, not just those with special status. A complete list, let alone an analysis, of all species using the areas mentioned is beyond the scope or intent of an EIR, as provided by CEQA Guidelines Section 15151, which states as follows: "An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible." The EIR focuses the analysis on "special-status" species, which may be considered those most likely to be significantly affected by the project. Regarding Mitigation Measure M-BI-le (Fireworks and Night Lighting), the commenter finds the mitigation for fireworks and night lighting too limited. The restrictions on night lighting are intended to be project-wide, and the mitigation for fireworks has been expanded to include Alcatraz (see the response to Comment A-NPS2-115). Finally, regarding Mitigation Measure M-BI-2, the determination that it may be "impractical" to fence large areas is only meant to suggest that in some cases signage may suffice. The mitigation described for the Marin Headlands (Mitigation Measure M-BI-1a: Protecting Sensitive Areas for Mission Blue Butterfly) stipulates the full range of protections: fencing, signage, road closures, and resource monitors (see EIR page 5.14-30).

12.19.7 Upland Biological Resources Cumulative Impacts [BIU-6]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-128	O-GGAS2-18	O-MAS-11

- The EIR's cumulative impacts discussion is inadequate and does not discuss other NPS ongoing projects. [A-NPS2-128]
- The EIR does not adequately assess cumulative impacts on birds, other wildlife, and habitat. [O-GGAS2-18]
- The cumulative impact analysis should not assume full compliance with signage and other mitigations. In addition, the project should not take credit for existing restoration projects to offset its own impacts. [O-MAS-11]

Response BIU-6

Comment A-NPS2-128 states that the cumulative impacts discussion is inadequate, especially considering NPS proposed/ongoing projects in the project area, and especially on Alcatraz. The commenter refers to Table 5.1-3, "Near-Term Projects that could Contribute to Cumulative Impacts," as a better compendium of future impacts. However, the table lists almost exclusively urban construction, with a few exceptions such as Doyle Drive/Presidio Parkway, which is mentioned in the cumulative effects section of this chapter (see Section 5.14.3.5, Impact C-BIa, pages 5.14-47 to 5.14-48); the urban projects are not expected to generate impacts on the biological resources identified in this EIR, as explained in this impact analysis on EIR page 5.14-47. The following explanation expands on this discussion.

CEQA Guidelines Section 15130 states:

> (a)(1) As defined in Section 15355, a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts.
>
> (b)…The discussion of cumulative impacts shall…focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

What this means, for example, is that if another project contributes only to a cumulative impact upon public services, its impacts on natural resources need not be discussed as part of cumulative impact analysis.

Nevertheless, the commenter is correct in noting that other NPS activities should be considered in the cumulative impact analysis. It is assumed that other NPS projects would be required to comply with NPS principles and guidance (see Section 5.14.5, Regulatory Framework), and therefore, it would be unlikely that cumulative impacts would reach the stage of "cumulatively considerable," when seen in conjunction with an event that is temporary in nature and results in no long-term habitat loss. Moreover, the implementation of other NPS projects would not likely be concurrent with AC34 activities.

Comment O-GGAS2-18 states that the Draft EIR does not adequately assesses the cumulative impacts on birds, other wildlife, and their habitats that would result as a consequence of the proposed AC34 project, and it fails to acknowledge the already-compromised nature of the Bay due to development over the last 150 years. The cumulative impact analysis uses the existing conditions at the time of publication of the Notice of Preparation (February 2011) as the baseline against which to consider potential future impacts. The existing conditions reflect the impacts of historical developments in the Bay since the introduction of Euro-American settlements in the 1800s. Acknowledging that the Bay has experienced cumulative impacts on biological resources over the last 150 years that must be deemed significant, the contribution of the temporary AC34 events is not deemed considerable.

Comment O-MAS-11 states that the cumulative impact analysis should not assume full compliance with EIR-identified mitigations. It is standard CEQA practice to assume implementation of project mitigation measures as part of the cumulative analysis, with the objective of determining if any residual impact could contribute to a significant cumulative impact and if any additional mitigation would be required. For the AC34 project, the mitigation measures identified in the EIR would reduce the severity of identified impacts to a level such that the project would not contribute to cumulative impacts and no additional mitigation would be required. This standard approach to analysis is valid. The commenter also points out that the cumulative impact analysis should not "take credit' for existing marsh restoration projects. The intent of the discussion of restoration projects is justified in two ways. First, many of these projects will affect the same resources, maybe even the same individual animals (in the case of birds) as the AC34 project. Secondly, the "cumulative" analysis does not attribute credit or blame. Its purpose is to look at a project objectively in the larger context of all organized human endeavors in the area and weigh both positive and negative effects against the effects of the project being analyzed.

12.20 Biological Resources, Marine

12.20.1 Overview of Comments on Biological Resources, Marine

The comments and corresponding responses in this section cover topics in Chapter 5, Section 5.14, of the EIR. These include topics related to:

- BIM-1, Setting
  - BIM-1a, General Comments
  - BIM 1b, Marine Mammals
  - BIM 1c, Subtidal Habitats
  - BIM-1d, Herring
  - BIM-1e, Marine Protected Areas
  - BIM-1f, Invasive Species
- BIM-2, Regulatory Framework
  - BIM-2a, General
  - BIM-2b, LTMS Work Windows
- BIM-3, Impacts on Special-Status Species
  - BIM-3a, Impacts on Marine Mammals (Non-Noise-Related)
  - BIM-3b, Impacts on Herring and Other Fish
  - BIM-3c, Impacts on Sea Turtles
  - BIM-3d, Noise Impacts on Marine Mammals from Race Activities
- BIM-4, Impacts on Sensitive Marine Communities
  - BIM-4a, Impacts on Eelgrass
  - BIM-4b, Impacts on Benthic Habitats
- BIM-5, Construction Impacts
  - BIM-5a, Construction Dredging
  - BIM-5b, Construction Noise Impacts
- BIM-6, Commercial Fisheries
- BIM-7, Invasive Species Impacts
- BIM-8, Mitigation Measures
  - BIM-8a, Visiting Mariners Information
  - BIM-8b, Other Mitigation Measures
- BIM-9, Cruise Terminal Scope of Analysis

12.20.2 Setting [BIM-1]

This topic is further subdivided into the following sub-topics:

- BIM-1a, General Comments
- BIM 1b, Marine Mammals
- BIM 1c, Subtidal Habitats
- BIM-1d, Herring
- BIM 1e, Marine Protected Areas
- BIM 1f, Invasive Species

BIM-1a, General Comments—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-CDFG-01   O-NRDC-03   O-NRDC-07

- The San Francisco Bay is one of the most important estuaries on the West Coast, providing important habitat for fish, aquatic organisms, and wildlife. [A-CDFG-01]
- The description of the project's environmental setting should use the most up-to-date information, involving more consultation with local experts and additional citations. Mitigations and plans should be more detailed and specific. [O-NRDC-03]
- The description of the project's marine biological setting should include more consultation with local experts, additional citations, and removal of outdated information. [O-NRDC-07]

Response BIM-1a

Several commenters provide generic, broad statements and comments about the importance of the marine resources in San Francisco Bay, the second largest estuary in the United States, and its importance in providing a broad range of shallow and deep water marine habitats that are used by plants and invertebrate and vertebrate organisms. These comments corroborate information presented on EIR pages 5.14-1 to 5.14-2.

Additionally, one commenter suggests that the information and data used to describe the marine biological resources were outdated and would benefit from the use of robust consultation with local experts, use of additional citations, and addition of important information about certain species, primarily marine mammals. The authors of the marine resources section reviewed and used pertinent current and citable information when preparing this section of the EIR. As researchers themselves who are actively engaged in ongoing marine studies in the San Francisco Bay-Delta, they relied on the most recent and comprehensive published and non-peer-reviewed (gray literature) information available. The NOAA 2007 reference, for example, represents the most current compilation of knowledge concerning the highly diverse and complex marine habitats present in the San Francisco Bay-Delta and the marine communities that inhabit those habitats, and was authored by most of the academic, private, and government scientists currently engaged in research on the Bay-Delta. The EIR uses and references the predominant peer-reviewed literature along with information from non-peer-reviewed documents to provide the reader with a clear understanding of Bay-Delta habitats and communities as they currently exist. As such, it serves well as a primary reference, where and when appropriate to use it. The NOAA reference is supplemented by other peer-reviewed and gray literature citations where appropriate or needed. For instance, in order to determine the composition of the fish communities inhabiting the project area, the authors obtained the most currently available fish census data collected by the California Department of Fish and Game (CDFG), as part of the Interagency Ecological Program, which collects fish data monthly. A 5-year period was used to characterize current conditions of fish species that are subject to tremendous swings in population size as a result of various meteorological and ecological conditions such as have occurred recently with salmon and herring populations in the Bay-Delta.

Comment O-NRDC-07 states that "In some sections, the DEIR uses decades-old scientific studies." This is a misleading statement. A careful review of the scientific studies and citations used throughout the marine resources section, in fact, shows that the overwhelming majority are studies published within the last 3 to 5 years and that those few citations for documents older than 10 years are for scholarly works that provide important information on life history or documentation of the occurrence of impacts of referenced marine organisms or important federal and state recovery plans for special-status species. Good scholarly scientific work is timeless and when and where appropriate it should continue to be used. For instance, the most comprehensive information on the entrainment of Dungeness crabs by dredging operations was conducted in the late 1970s and throughout the 1980s. Very little pertinent and substantive work has been done on the subject since that time. Similarly, some cornerstone noise impact studies on marine mammals were done in the late 1980s during a period of expanded oil and gas exploration in Alaska. The scientific findings of these studies remain accurate and valid today and are not considered "dated" if used appropriately, as they are in the EIR.

When discussing the potential for occurrence of specific taxa within the project area during proposed AC34 project activities, the most current, documentable, and pertinent information available was used. When discussing potential effects, a combination of recent and important cornerstone citations was used.

It is also acknowledged that there is ongoing, unpublished research underway in the Bay-Delta, especially concerning marine mammals and other sensitive or protected species. Most of this ongoing work, although interesting and valuable in its own right, is expected to add to the collective knowledge about Bay-Delta marine resources and when peer-reviewed and published will become important reference documents. However, at this time, the ongoing, unpublished research underway in the Bay-Delta does not substantially change the brief, focused information presented in Section 5.14.4. This information and subsequent impact analysis, which is discussed in more detail below, assumed that identified marine mammals had the potential to be present in the project area during some or all of the proposed project activities, especially the AC34 2012 and 2013 races, and that proposed mitigations are capable of addressing potential effects of the project on these animals.

BIM-1b, Marine Mammals—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-129, -132	A-NPS2-130	O-ACEC-309	O-NRDC-07

- Page 5.14-52 should include a discussion of elephant seals, which can be affected by spectator boats and aircraft overflights. [A-NPS2-129, A-NPS2-132]
- Harbor seals also occur at Point Bonita Cove and Little Alcatraz. [A-NPS2-130]
- The project description should remove outdated information. Current scientific information is requested for harbor porpoises, bottlenose dolphins, sharks, harbor seals, and California sea lions. [O-ACEC-309, O-NRDC-07]

Response BIM-1b

Comments A-NPS2-129 and A-NPS2-132 express concern that the discussion of marine mammals that have the potential to be present in the project area (Section 5.14.4.3) fails to mention elephant seals. Although elephant seals have established major colonies and haul-outs near San Simeon, Año Nuevo State Park, and the Farallon Islands, all in close proximity to San Francisco Bay, there is no published documentation that they have begun to use locations within San Francisco Bay. Personal contact with the Marine Mammal Center in Sausalito reveals that a few young-of-the-year elephant seals have been finding their way into San Francisco Bay the past few years between March and August, with an occasional report in October and November. These juveniles will haul out on the beach at Crissy Field to rest. A few have been collected and taken to the Marine Mammal Center for treatment of malnutrition prior to being released.

However, the analysis of potential effects of AC34 events on known marine mammals present within the Bay (see EIR Section 5.14.6.3, pages 5.14-88 through 5.14-93 and 5.14-105 through 5.14-108) determined that implementation of proposed protection actions by the project sponsor actions (e.g., Water and Air Traffic Plan) as well as EIR mitigation measures (e.g., Mitigation Measures M-BI-11a-c, M-BI-12, and M-BI-14) would equally protect elephant seals and other marine mammals within San Francisco Bay. The same commenter mentions that harbor seals have been known to occur at Bonita Cove and Little Alcatraz (a buoy and exposed rock outcropping adjacent to Alcatraz Island) and this supplemental information is acknowledged. As described in Section 5.14.4.3, harbor seals use many locations for temporary haul-outs throughout Central San Francisco Bay. The focus of the EIR impact analysis was to identify known colony haul-outs within the project area and pupping sites and to acknowledge that harbor seals are regular and frequent inhabitants within the project area and will use many locations as temporary resting sites, which include those mentioned by the commenter.

Comments O-ACEC-309 and O-NRDC-07 express concern regarding the adequacy of the descriptions and information on harbor porpoises, bottlenose dolphins, harbor seals, and California sea lions and whales. These commenters suggest that "more current" information, such as current work being conducted by Golden Gate Cetacean Research, be cited. In preparing this section of the EIR, the authors used all reliable and documentable information concerning the presence of marine mammals in the project area. Although the population of harbor seals within the Bay is closely monitored, the same cannot be said for the other common marine mammals frequenting the Bay such as sea lions and harbor porpoises. Although ongoing research is attempting to better define population sizes, behaviors, and movements, this work is still ongoing and therefore any scientific findings from this research are still in development. Specific to harbor porpoises, they are known to be present year-round in Central San Francisco Bay, although in relatively small numbers when compared to the presence of sea lions and harbor seals in the same area of the Bay. They can be expected to engage in many types of behavior when present, including foraging, mating, and nursing. A similar statement can be made about bottlenose dolphins, which are relative newcomers to the list of marine mammals frequenting Central San Francisco Bay. In preparing an EIR, the authors must balance the need to be succinct with the need to provide sufficient detail that aids in the impact assessment. All of the comments about additional information on identifying temporary haul-outs for sea lions and harbor seals are acknowledged, but this information does not change the analysis of project activities on marine mammals that may be present within the project area during AC34 activities. The analysis assumed that harbor seals, sea lions, harbor porpoises, and sea otters could be present during some infrastructure improvement at the Port of San Francisco as well as during AC34 activities and races. The analysis also assumed that gray and humpback whales could be present during Port improvement activities but that only humpback whales had any potential to be present during race events since gray whales would have completed their southerly migration by then.

In response to these comments, the EIR text in Table 5.14.2, row 13 and 14, on page 5.14-60 is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

Common Name ***Scientific Name***	**Listing Status**	**General Habitat**	**Potential for Species Occurrence Within Project Area**	**Time Period Present in Project Area Waters**	**Common Name** ***Scientific Name***
Harbor porpoise *Phocoena phocoena*	-/FP	-	An inshore species inhabiting shallow, coastal waters and occasional large rivers, including San Francisco Bay-Delta	C	Year-round
Northern Elephant Seal *Mirounga angustirostris*	-/FP	-	Northern elephant seals are the largest phocid, or "true" seal, in the Northern Hemisphere. They are found in the eastern and central North Pacific Ocean. They range as far north as Alaska and as far south as Mexico, with established Central California breeding colonies on the Farallon Islands, at Año Nuevo State Park, and near San Simeon, California. In recent years, young -of-the-year individuals have been observed hauling out on the sandy beach at Crissy Field.	P	Primarily April to August with occasional occurrences in October and November
Bottlenose Dolphin *Tursiops truncatus*	-/FP	-	Found along the California coastline, bottlenose dolphins segregate into coastal or oceanic ecotypes with the coastal ecotype inhabiting waters within 1-kilometer of shore normally between Baja, California and Point Conception. During El Niño events and in recent years, bottlenose dolphins have been observed as far as San Francisco Bay with individuals making occasional forays to the Golden Gate.	~~P~~C	Potentially Year-round, especially May to October

The EIR text on page 5.14-52, second full paragraph, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> Harbor porpoises can be observed in the Bay at any time of the year, although they do not solely inhabit the Bay-Delta but utilize both the waters of the Bay-Delta as well as nearshore coastal waters. The harbor porpoise is a nearshore species, commonly observed near the Golden Gate Bridge and open water areas of the Central Bay, especially between the Golden Gate, Angel Island, and Alcatraz Island. Depending on the tide, they frequently forage for prey fish near Cavallo Point and Yellow Bluff.

The EIR text on page 5.14-67, first full paragraph, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> **Harbor Porpoise (*Phocoena phocoena*)**
>
> Harbor porpoises are nonsocial animals usually seen in groups of 2 to 5 individuals, although recently larger groups of individuals have been reported in the area between the Golden Gate, Angel Island and Alcatraz Island, especially during peak tidal flow.[117a]

These revisions do not change the analysis or conclusions presented in the EIR.

In their comments about marine mammals, Comments O-ACEC-309 and O-NRDC-07 also mention the presence of sharks in San Francisco Bay, although sharks are not a marine mammal. Both commenters are correct that there are approximately 11 species of sharks reported to frequent San Francisco Bay, of which five can be present year-round. The two mentioned, spiny dogfish and leopard sharks, are (based on the most frequent and publically available CDFG monthly fish census data) the most common in the project area. The other species of sharks mentioned may be present but based on CDFG data appear to be present in very low abundance, using the Bay waters and subtidal habitats for foraging and other uses. That having been stated, the analysis of potential effects on fish from project actions considered all fish that could be present, including sharks that may be present for very small periods of time throughout the year and in very small numbers.

BIM-1c, Subtidal Habitats—Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

> A-NPS2-101

- The description of Aquatic Park on page 5.14-4 should include underwater resources such as razor clams and mussels as well as sea lions. [A-NPS2-101]

[117a] William Kenner, "Safe harbor; Welcoming Porpoises Back to San Francisco Bay," *Bay Nature*, http://baynature.org/articles/jul-sep-2011, July-September 2011.

Response BIM-1c

EIR Section 5.14, Biological Resources, is divided into two major sub-sections: upland biological resources (including birds) and marine biological resources. Comment A-NPS2-101 references the text on page 5.14-4, which describes the upland biological resources at Aquatic Park. The underwater resources to which the commenter refers are described in detail in Section 5.14.4.3 (pages 5.14-50 to 5.14-57), covering the entire project area and organized by habitat type rather than by specific geographic location. Those marine habitats in the project area adjacent to Aquatic Park that the commenter refers to are included under the description of soft sediment and rocky and sandy intertidal areas. This description includes mention of any sensitive or protected species in those habitats.

BIM-1d, Herring—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-131 A-NPS2-201

- Alcatraz contains herring spawning habitat on its piers. [A-NPS2-131]
- Eelgrass in Horseshoe Bay is sensitive to mooring, dredging, increased turbidity, and discharge. [A-NPS2-201]

Response BIM-1d

Comment A-NPS2-131 states that Alcatraz Island has herring spawning habitat on its piers, and Comment A-NPS2-201 states that the eelgrass beds in Horseshoe Bay are particularly sensitive to mooring, dredging, and increased turbidity. The commenter is correct in both concerns and statements and, as stated in the EIR on page 5.14-64, "Spawning-substrate such as submerged aquatic vegetation beds, especially eelgrass beds, or rocky intertidal areas are preferred, but man-made structures such as pier pilings and riprap are also frequently used spawning substrates in San Francisco Bay." This statement includes the rocky rip-rap, submerged aquatic vegetation, and artificial pier pilings located at Alcatraz Island. Figure 5.14-5 illustrates the dominant, larger locations where Pacific herring spawning occurs in Central San Francisco Bay. Locations as small as individual piers and small submerged aquatic vegetation beds like those that occur at Alcatraz Island are smaller than the resolution of the figure is capable of illustrating, and the figure is not intended to suggest that those locations shown are the *only* locations within the Central Bay where herring spawn. No dredging or AC34 installed moorings are scheduled to occur in any eelgrass beds or at either of these locations. Concerns about visiting boaters mooring in Horseshoe Bay are one of the items to be addressed, along with other similar locations within the Central Bay, in the visiting mariners information, discussed below in Response BIM-8a.

BIM-1e, Marine Protected Areas—Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

A-NPS2-133

- GGNRA is a federal marine protected area, and some of its lands are part of the Golden Gate Biosphere Reserve. [A-NPS2-133]

Response BIM-1e

Comment A-NPS2-133 states that those waters of San Francisco Bay that are within federal jurisdiction of the Golden Gate National Recreation Area (GGNRA) are classified as a federal marine protected area. In response to this comment, the EIR text on page 5.14-49, third paragraph in Section 5.14.4.1, first sentence, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> The Central Bay sub-region of the baylands includes the main body of San Francisco Bay, and includes the deepest areas of the Bay and the most natural and man-made hard bottom substrate.[49] The seaward region of the GGNRA is within a federal marine protected area.

The EIR analysis considered all marine habitats and biological resources within Central San Francisco Bay where AC34 project-related activities and potential effects could occur. This included those Bay waters located within the GGNRA. As a result, the inclusion of this added text to the Draft EIR only provides additional geographical context information and does not change the analysis or conclusions presented in the EIR.

BIM-1f, Invasive Species—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-CSLC2-01
A-CSLC2-04
A-CSLC2-05

- Section 5.14.4.6 should discuss and mitigate vessel biofouling as a vector for introducing invasive species, in addition to its discussion of ballast water. [A-CSLC2-01]
- The EIR should correct a misleading implication that invasion rates for San Francisco Bay were linear between 1960 and 1995. [A-CSLC2-04]
- Biofouling is at least as important a cause as ballast water for introducing invasive species. [A-CSLC2-05]

Response BIM-1f

Several comments raise concern about the EIR discussion of non-native invasive marine species (NIS) in San Francisco Bay and indicate that the text provided in Section 5.14.4.6 (pages 5.14-72 to 5.14-73) might unintentionally provide an incorrect impression regarding the risk of introduction and spread of NIS into San Francisco Bay. The commenter statement that shipping is likely the most prevalent source of invasive species introduction and that the largest single source is in ballast water is no longer accurate; recent studies have shown that, in many locations around the world, biofouling is as least as important as ballast water. The comment is acknowledged, but for San Francisco Bay it appears that biofouling can be considered as having contributed to more invasive animals being introduced than ballast water, based on the natural history of the organisms. In response to this comment, the EIR text on page 5.14-72, paragraph 4 and continuing onto page 5.14-73, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> Invasive organisms are introduced by a variety of methods, the most prevalent being shipping. ~~of which the largest single source is in ballast water. Other~~ Primary methods of introduction include ballast water and fouling organisms that have attached themselves to ship hulls, ~~navigation buoys,~~ anchors, and anchor chains[141a], such as the Asian kelp, *Undaria pinnatifidam*.~~;~~ Additional sources include recovered flotsam; "live" rock and plants from the aquarium trade; the accidental release of animals from packing materials by restaurants serving live seafood; and the live bait industry.[142]

This revision does not change the analysis or conclusions presented in the EIR.

This comment also indicates that 2,280 visiting vessels would present some risk of biofouling to San Francisco Bay. The Draft EIR presented an estimate of 2,280 spectator vessels as the maximum number of boaters expected to potentially take part in viewing the 2013 AC34 races on a peak weekend day. However, as noted in Chapter 11, since publication of the Draft EIR, the project sponsors have revised this estimate to 880 spectator vessels based in large parts on boat counts conducted during Fleet Week in October 2011. Of these 880 spectator boats, it is estimated that 20 would be commercial charters, 60 would be large private yachts, and 800 would be recreational boats, and that 90 percent of the vessels are expected to originate from the San Francisco Bay-Delta, with the remainder from other locations either along the West Coast or elsewhere. Although the number of non-Bay Area boats would be less than the number indicated by the commenter, the potential risk of biofouling from these boats would still be present and is addressed in Section 5.14.6, pages 5.14-109 through 5.14-11, of the EIR.

Comment A-CSCL2-04 states that the EIR text is misleading by suggesting that the invasion rates for San Francisco Bay were linear between 1960 and 1995. In response to this comment, the EIR text on page 5.14-72, second paragraph in Section 5.14.4.6, is revised as follows to clarify the data presented (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> San Francisco Bay and Delta have more than 230 identified introduced taxa inhabiting its estuarine and marine waters. San Francisco Bay-Delta has been described as the most invaded estuary in North America.[138] Based on a study published in 1995, the number of newly detected invasions of introduced taxa averaged one per every 55 weeks from 1851 to 1960; this compared to an average of one newly detected invasion every 14 weeks from 1961 until 1995 ~~It is currently estimated that a new aquatic species is introduced into the San Francisco Bay-Delta every 14 weeks, whereas prior to 1960 the rate was once every 55 weeks.~~[139]

This revision does not change the analysis or conclusions presented in the EIR.

[141a] Hewitt, C. and M. Campbell, *The relative contribution of vectors to the introduction and translocation of invasive marine species*, Final Report prepared for the Australian Department of Agriculture, Fisheries and Forestry, 56 pages, 2010.

12.20.3 Regulatory Framework [BIM-2]

This topic is further subdivided into the following sub-topics:

- BIM-2a, General
- BIM-2b, LTMS Work Windows

BIM-2a, General—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-CSLC2-02
A-CSLC2-06
A-CSLC2-07
A-CSLC2-08
A-Sausalito-03
O-WW-49

- The EIR refers to an outdated version of the Marine Invasive Species Act, and omits several Marine Invasive Species Program (MISP) laws and regulations. [A-CSLC2-02]
- Section 5.14.5.1 should be renamed "Federal Laws and Regulations" for clarity. [A-CSLC2-06]
- Section 5.14.5.1 should mention the U.S. Environmental Protection Agency Vessel General Permit, which may be applicable to certain vessels. [A-CSLC2-07]
- Section 5.14.5.2 should be renamed "State Laws and Regulations" for clarity. [A-CSLC2-08]
- The marine resources section does not adequately consider Sausalito's General Plan. [A-Sausalito-03]
- The EIR should identify the policies and ordinances protecting marine resources with which race activities might potentially be in conflict. [O-WW-49]

Response BIM-2a

Comment A-CSLC2-02 expresses concern about the accuracy of the description of California regulations concerning invasive species. The commenter is concerned that the regulations were incorrectly identified and outdated. EIR Section 5.14.5.2, State Regulations, on page 5.14-78 correctly identifies the Marine Invasive Species Act (2003), which replaced the 1999 California Ballast Water Management for Control of Non-indigenous Species Act. The primary requirements of the act have been to control ballast water from marine vessels, but the act has been amended to include other requirements. In response to this comment, the EIR text on page 5.14-78, paragraph 3, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> *Marine Invasive Species Act*
>
> All shipping operations that involve major marine vessels are subject to the Marine Invasive Species Act of 2003 (Public Resources Code Sections 71200 through 71271), which revised, ~~and~~ expanded, extended, and renamed the California Ballast Water Management for Control of Non-indigenous Species Act of 1999 (AB 703). ~~This~~ The Marine Invasive Species Act ~~act~~ is administered by the State Lands Commission through its Marine Invasive

> Species Program and applies to all domestic and foreign vessels over 300 gross registered tons. The Act, as amended in subsequent years, has primarily focused on regulating ~~regulates~~ the handling of ballast water from marine vessels arriving at California ports in order to prevent or minimize the introduction of non-native invasive species (NIS)~~from other regions~~. Other requirements of the Act are concerned with hull husbandry and the reduction of fouling and the spread of NIS from fouling organisms as well as data gathering to better understand NIS threats to state waters and marine communities.

This revision does not change the analysis or conclusions presented in the EIR.

Comments A-CSLC2-06 and A-CSLC2-08 are concerned that the section titles for Sections 5.14.5.1 and 5.14.5.2 included not only federal and state regulations, respectively, but also laws, and that the section titles would benefit from including "laws" in them. The use of the term "regulations" in these titles is intended in the general sense of the word and as such includes all laws, regulations, and policies, as opposed to the legal use of the term for regulations that are promulgated by federal and state agencies in response to legislation.

Comment A-CSLC2-07 indicates that Section 5.14.5.1, Federal Regulations, did not include the United States Environmental Protection Agency Vessel General Permit (VGP) regulations contained under the Clean Water Act. The commenter is correct in mentioning that this regulation may be applicable to a select few of the possible visiting vessels to the AC34 events. Since the VGP program is primarily focused on vessel discharges as regulated under the Clean Water Act, the inclusion of this regulation in the EIR should be contained in Section 5.16, Hydrology and Water Quality; see Section 12.22, Hydrology and Water Quality, Response HY-2 for a discussion of the EIR text revisions to include this regulation in the regulatory framework of the hydrology and water quality section of the EIR. Additionally, the regulations are among several to be included in the visiting mariners component of the Water and Air Traffic Plan.

Comment A-Sausalito-03 expresses concern that the marine resources section did not consider elements of the Sausalito General Plan, particularly the plan's Environmental Quality Element. Since none of the in-water AC34 project construction activities or actual AC34 2012 and 2013 race activities are planned to occur within the regulatory jurisdiction of the City of Sausalito, the Sausalito General Plan was not included in the regulatory framework discussion of the EIR's marine resources section. The only indirect activity that might occur as a result of the AC34 project is the use of existing marinas by visiting boaters, which is considered part of the existing marina operations, and potential impacts should already have been addressed during the development of those marinas and the adoption of the Sausalito General Plan.

Comment O-WW-49 expresses concern that the impact analysis failed to identify the local policies or ordinances with which project activities might be in conflict. EIR Section 5.14.5.3, Local Regulations and Marine Resource Plans, pages 5.14-79 to 5.14-80, presents a listing and brief descriptions of the applicable local regulations and ordinances pertinent to the potential impacts of the AC34 project on marine biological resources that would occur within the project area.

In response to these comments, the policies contained within the general plans of the Cities of Sausalito and Belvedere, Town of Tiburon, and Marin County relevant to marine resources are presented below.

Marin Countywide Plan

Policies related to marine biological resources protection in the Natural Systems & Agriculture Element of the *Marin Countywide Plan* are as follows:

> *Policy BIO-1.1*: Protect Wetlands, Habitat for Special-Status Species, Sensitive Natural Communities, and Important Wildlife Nursery Areas and Movement Corridors.
>
> *Policy BIO-1.6:* Control Spread of Invasive Exotic Plants.
>
> *Policy BIO-1.9:* Control Spread of Non-Native Invasive Animal Species
>
> *Policy BIO-2.1:* Include Resource Preservation in Environmental Review.

Sausalito General Plan

Policies related to marine biological resources protection in the Environmental Quality Element of the *Sausalito General Plan* are as follows:

> *Policy EQ-2*: Protect the natural terrain and native vegetation.
>
> *Policy EQ-3:* Protect threatened and endangered species of wildlife and plants native to Sausalito and the Southern Marin area.

Tiburon General Plan

Policies related to marine biological resources protection in the Open Space and Conservation Element of the *Tiburon General Plan* are as follows:

> *Policy OSC-16*: The Town shall preserve and enhance the diversity of wildlife and aquatic habitats found in the Planning Area bayfront lands, including tidal marshes, seasonal marshes, lagoons, wetlands, and low-lying grasslands over historical marshlands.
>
> *Policy OSC-25:* A diversity and abundance of wildlife and marine life shall be protected and maintained. The Town shall strive to preserve and protect to the greatest extent feasible wildlife habitat in the open spaces, shoreline, marshes, mudflats, and other biologically sensitive areas.

Belvedere General Plan

Policies related to marine biological resources protection in the Sustainability and Resource Conservation Element of the *Belvedere General Plan 2030* are as follows:

> *Policy SUST-10.1*: Remain updated on the status of potential avoidance and mitigation measures related to potentially endangered and special status species.
>
> *Policy SUST*-10.3: Avoid impacting, minimize disruption of, or restore native oyster populations when found in or near a project area.
>
> *Policy SUST-10.4:* Protect eelgrass colonies and individual eelgrass plants.

The analysis of potential project-related impacts on marine habitats and associated biological resources in the EIR is inclusive of the concerns and protections contained within these policies.

BIM-2b, LTMS Work Windows—Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

A-CDFG-05

- If any in-water work should occur at times other than the approved work windows, the project should consult with CDFG to discuss actions to avoid impacts on marine resources. [A-CDFG-05]

Response BIM-2b

This comment expresses the importance of conducting assorted in-water construction activities, including impact hammer pile driving and dredging, during times of the year when protected and sensitive species are the least vulnerable, in order to protect marine resources. In the event that any of the proposed in-water work would have the potential to be conducted outside the established windows, because of unforeseen and uncontrollable circumstances, the AC34 project sponsors would contact both CDFG and the National Marine Fisheries Service (NMFS) and additional protection measures would be employed. At present, as part of the permitting process for the AC34 project, Biological Assessments have been prepared for NMFS, United States Fish and Wildlife Service, and CDFG discussing the potential effects of project activities on protected and sensitive species and habitats.

12.20.4 Impacts on Special-Status Species [BIM-3]

This topic is further subdivided into the following sub-topics:

- BIM-3a, Impacts on Marine Mammals (Non-Noise-Related)
- BIM-3b, Impacts on Herring and Other Fish
- BIM-3c, Impacts on Sea Turtles
- BIM-3d, Noise Impacts on Marine Mammals from Race Activities

BIM-3a, Impacts on Marine Mammals (Non-Noise-Related)—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-38
O-ACEC-317
O-CNPS-02
O-MCL-04
O-CNPS-08
I-O'Mahoney-01
O-NRDC-13
O-WW-48

- Mitigation Measure M-BI-14 should include all species of whales as gray whales are more common than humpback whales. [A-NPS2-38]

- The EIR should provide additional analysis about the possibility of collisions between ships and marine mammals. [O-ACEC-317]
- Power boats may prove dangerous to marine mammals in the Bay. [O-CNPS-02]
- The EIR should describe any effects the wave suppression feature of the floating dock may have on harbor seals or sea lions. [O-CNPS-08]
- The EIR should consider the fact that race boats are much faster and more dangerous to marine mammals than commercial and recreational watercraft. [O-MCL-04]
- The EIR should provide more information about past interaction between marine mammals and the specific boats used in races. Applicable mitigation measures will require trained and experienced marine mammal observers independent of the race operator and able to trigger action. [O-NRDC-13]
- Mitigation Measure M-BI-12 does not mitigate impacts on marine mammals, because whale warnings fail to protect other species and the Visiting Mariners Plan does not include any information on marine mammals. [O-WW-48]
- The EIR should take harbor seals at Aquatic Park into account. [I-O'Mahoney-01]

Response BIM-3a

Comment A-NPS2-38 indicates concern that Mitigation Measure M-BI-14 does not include gray whales, which occur within the Bay more frequently than humpback whales, and that all whales should be included in the measure. The measure was intended to solely address the potential for a whale to be present in the Bay during AC34 race events, when race and spectator boats would be present in the western part of the Central Bay. Gray whales are present in the region from December through April, before the races are scheduled to occur in late summer-early fall, and therefore there is no potential for the whales to be present in the Bay during actual race events. The only whales with the potential to be present in the region during the summer-fall time period for which the 2012 and 2013 races are scheduled to occur is the humpback whale, and this is the basis for inclusion of this species alone in the mitigation measure.

Comments O-ACEC-317, O-CNPS-02, O-MCL-04, O-NRDC-13, and O-WW-48 express concerns about the potential speeds of the race boats, the number of spectator boats and their potential for contributing to marine mammal strikes (either because of their number or their speeds), and the visiting mariners information contained within the Water and Air Traffic Plan. The AC45 race boats have been documented to achieve speeds up to 20 knots, depending on sea and weather conditions. The potential speeds of the AC72 race boats are unknown at present since they are still being developed for the 2013 AC34 races, but their speeds are expected to be greater than 20 knots. Little information is available on the frequency or occurrence of marine mammal strikes by race boats. San Francisco Bay is host to regular and frequent sailing regattas, and there are no known records of marine mammal strikes by race boats. The commenters state that the normal weekend race boat does not sail at speeds comparable to the AC45 and AC72 boats that will be used in the planned AC34 2012 and 2013 races. Most marine mammals avoid boats that are underway and traveling at high speeds. The high-speed ferries that frequent Bay waters, which are predominantly multi-hull boats like the planned AC34 race boats, travel at speeds in excess of 20 knots and regularly transit across the western part of the Central Bay (where AC34 races are proposed to occur at speeds of up to 36 knots); these vessels have not been reported to be involved in any known marine mammal strikes despite the presence of a major harbor seal haul-out and pupping colony at Castro Rock as well as the frequent presence of both harbor seals and sea lions along the Tiburon peninsula, at Angel, Alcatraz, and Treasure Islands, and throughout Central San Francisco Bay. The potential for marine mammal strikes may be greater to isolated individuals, which may be more difficult to see, than to a small swimming group. Spectator boats would likely be moving at much lower speeds (approximately 10 knots or less) while congregated in the western part of the Central Bay to observe the races.

As identified in Mitigation Measure M-BI-12 (Visiting Mariners Information) on pages 5.14-100 to 5.14-103, information on marine mammals would be included in the Water and Air Traffic Plan. This mitigation measure requires that the project sponsors disseminate to visiting boaters and race teams important information about state and federal regulations protecting marine mammals and prohibiting harassment; this would include information on the presence of marine mammals in the Bay, safe and required distances between boats and marine mammals, and ways to avoid collisions with marine mammals. It is expected that during the AC34 race activities, observations by and communication with congregated boaters and race boats would increase the necessary awareness in the event that marine mammals are present in the race area, including the need to take extra precautions to avoid strikes to marine mammals (which would also be detrimental to the race boats and observers' boats). The estimate of 880 spectator vessels during peak 2013 AC34 races presented in Chapter 11 is based, in part, upon recent vessel numbers in the Bay during Fleet Week; see Chapter 11 and Section 12.6, Response IO-3, for a description of how the estimated number of spectator vessels was derived.

Comment O-NRDC-13 concerns the qualifications and utilization of marine mammal observers and the marine mammal monitoring approaches employed. As described in Section 5.14.6.3, Impact BI-14, on page 5.14-106 of the EIR, the America's Cup Race Management staff would be responsible for establishing each day's race course and for inspecting the race area for the presence of obstacles (such as marine mammals) or debris. The race marshals are intended to coordinate the race activities themselves and would work with the United States Coast Guard to manage appropriate locations for spectator boats, maintain prescribed speeds, and other responsibilities that ensure a safe AC34 race. The race management personnel are not intended to be marine mammal observers, nor is there any current intent to implement a marine mammal monitoring program. However, the race marshals would receive training in how to observe for and recognize the presence of marine mammals, both cetaceans and pinnipeds.[1] The San Francisco Planning Department acknowledges that the commenter supports the proposed actions of the Course Marshal regarding inspecting the course for marine mammals in advance of the races and postponing or abandoning a race in the event a whale is observed within the race area.

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[1] Yogi, Susan, AECOM, personal communication with Joyce Hsiao, Orion Environmental Associates, November 8, 2011.

It should be noted that avoiding collisions with marine mammals is the sole responsibility of the operator of the vessel. United States Coast Guard regulations are explicit that the operator (captain) of a vessel is responsible for the safe operation of that vessel at all times. Under National Oceanic and Atmospheric Administration (NOAA) regulations, the operator of the vessel would be cited and fined for harassment of any kind to marine mammals under the Marine Mammal Protection Act. Please see Chapter 11 for additional information on marine mammal protection that would be contained within the Water and Air Traffic Plan.

Comment O-CNPS-08 raises concern for marine mammals and the possible effects of the wave suppression feature (wave attenuators) proposed for the Pier 32-36 Open Water Basin in the Draft EIR. Since publication of the Draft EIR, the project sponsors have determined that wave attenuators may not be needed; please see Chapter 11 regarding the AC34 Project Variant, which would eliminate use of the wave attenuator structure at this location. However, to respond to this comment with respect to the analysis presented in the Draft EIR, a wave attenuator is essentially a floating wall that is submerged a short distance underwater, with limited above-water exposure. The purpose of the device is to stop the movement of wind-generated waves from proceeding into the protected anchorage. It simply calms the surface waters of the Bay inside the area being protected. Temporary steel pilings are used to anchor the device, both at its ends and at set locations along its length to ensure that it remains in place, where placed, during strong tidal currents and storm surface currents, as frequently occur within San Francisco Bay. Its presence would require marine mammals to swim around it to reach Bay waters on either side of the wave suppression device. No impact on marine mammals would be expected to occur from the temporary placement of this structure at the designated location in the Bay.

Comment I-O'Mahoney-01 states that the EIR should analyze impacts on harbor seals, as well as jellyfish, in Aquatic Park. As stated on page 5.14-82, AC34 construction and operational activities could affect sensitive marine species in their general use of Central Bay waters for foraging and resting. Because some of these species (i.e., Pacific herring, harbor seals) are at potential risk in their breeding, and because project-related boat traffic of all kinds could have effects on many species that may alter their movement patterns throughout the Bay, discussion of and mitigation for these impacts are included under Impact BI-16, which covers *movement* of native wildlife and native wildlife nursery sites. See Impact BI-16 on page 5.14-108. Impacts were determined to be less than significant with mitigation.

BIM-3b, Impacts on Herring and Other Fish—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-MAS-12	I-Gross-01

- Take permits can only be issued under the Federal Endangered Species Act, while CDFG can only deny permits. In addition, the EIR should discuss total water and new coverage of Bay water due to construction, and address the impacts of permanent yacht mooring at Rincon Basin. [O-MAS-12]

- The marine resources section of the EIR does not analyze impacts on the herring population. In addition, some information given about herring is incorrect or unreliable. [I-Gross-01]

Response BIM-3b

Comment O-MAS-23 states that "take" permits could only be issued under the Federal Endangered Species Act (FESA). This statement is not correct. Sections 2081(b) and (c) of the California Endangered Species Act (CESA) allow CDFG to issue an incidental take permit for a state-listed threatened and endangered species when specific criteria are met. These criteria are reiterated in Title 14 CCR, Sections 783.4(a) and (b). The issuance of a state 2081 "take" permit is important when dealing with protected species, such as longfin smelt, that are listed under the CESA and not under the FESA.

This same commenter is concerned about how much of the Bay would be covered from AC34 construction and what adverse effects on marine resources would occur from the construction and ongoing use of a permanent marina at Rincon Point. Concerning the total water area and new coverage of the Bay from AC34 infrastructure improvements, with the exception of the seismic improvement to Piers 30-32, no permanent loss or coverage of Bay waters would occur. The proposed seismic improvements at Pier 30-32 would not result in any increased water coverage since the additional pilings, piling wraps, and replaced piles would all be located under the existing deck of Piers 30-32. As described in Table 5.14-5 on page 5.14-85 of the EIR, the Port infrastructure improvements for the AC34 2012 and 2013 events would total less than 194,000 square feet or 4.5 acres, and would be in place less than 18 months, depending on whether they are installed prior to the 2012 or 2013 race events and when after the 2013 race events they are removed, respectively. Please see Chapter 11 regarding the proposed reduction in this acreage that would be associated with the AC34 Project Variant.

The Host Agreement between the City and the Event Authority does provide certain conditional long-term development rights and directs that any such future development would be required to undergo additional environmental review to comply with CEQA, if and when site-specific development is proposed. If the Event Authority's future long-term development rights were to include a permanent marina at Rincon Point, this development would be subject to site-specific, project-level CEQA environmental review, and adverse effects on marine resources would be identified as part of that CEQA process. Please see Chapter 11 for a description of the Modified Reduced Intensity and Long-Term Development Alternative which would eliminate a permanent marina at Rincon Point.

Comment I-Gross-01 is concerned that the EIR fails to adequately assess potential project effects on Pacific herring, and more specifically, project-related impacts that could negatively affect the health and productivity of the San Francisco Bay herring stock and the temporary and/or permanent loss of access to fishing grounds along the San Francisco shoreline. The commenter is correct in stating that the portion of the Bay adjacent to the Port of San Francisco and extending southward along the western shoreline of the Central Bay into the South Bay is one of the major spawning regions for Pacific herring. The importance and contribution of this region of the Bay to the overall Bay herring fishery standing stock and to the herring roe commercial fishery have undergone tremendous fluctuations over the past 30 years. Recent concerns about the size of the population in San Francisco Bay led to closure of the herring fishery in 2010. Along the shoreline of San Francisco where Port improvements in support of the AC34 races are to occur, herring spawn on artificial substrate, such as pier pilings, concrete bulkheads, or rocky riprap, or on submerged aquatic vegetation attached to artificial substrate. Herring's preferred spawning habitat in the Bay is eelgrass, such as occur in large beds in Richardson Bay, at Point Pinole, along the Richmond shoreline, and elsewhere throughout the Bay. It is expected that as these beds continue to thrive and grow, as they have over the past two decades, herring spawning will rely on the eelgrass beds for spawning habitat and less on artificial substrate. This shift in spawning habitat may, in part, explain the decline in herring spawning in the waters adjacent to the Port of San Francisco over the past couple of decades.

The commenter is concerned that because Pacific herring was only mentioned casually in the EIR and essentially relegated to "a brief mention of herring in a chart concerning noise," the subsequent impact analysis was inadequate. This is a misstatement. Pacific herring are listed as one of the key species considered throughout the analysis in Impact BI-11 on pages 5.14-81 to 5.14-98. Consistent with CEQA requirements, the analysis focuses initially on protected species (i.e., those taxa most at risk because of their threatened or endangered status); secondly on local species of importance, such as Pacific herring; and lastly on other marine taxa known or expected to be present within the project area during project activities. Herring were specifically included in the data presented concerning pile-driving noise because of their small size and presence in the Bay year-round, which makes them potentially susceptible to pile-driving noise impacts.

To summarize the impact analysis as it specifically relates to Pacific herring, proposed project activities, especially the temporary and permanent Port infrastructure improvements proposed in support of the AC34 2012 and 2013 races, are not expected to have a significant effect on either the herring population of the Bay or the commercial fishery. The most sensitive period for herring is when they are spawning and while their eggs are maturing prior to hatching. This occurs between December 1 and March 1, which coincides with the established LTMS windows for when dredging cannot occur within the Central Bay and when impact hammer pile driving cannot occur. However, these types of construction activities are routinely permitted between March 2 and November 30 of each year. Because the herring fishery is primarily a roe fishery within San Francisco Bay, it coincides with the period of December 1 through March 1, when dredging or impact hammer pile driving is not scheduled to occur. Pile driving for both the seismic improvements at Piers 30-32 and for the temporary placement of floating docks would primarily occur from shore side pile drivers. In a few locations, floating barges may need to be used within the existing Port slips and not within the channel, where fishing primarily occurs. Consequently, no restricted access by commercial herring fishermen or to the resource would be expected. Temporary floating docks are to be installed immediately adjacent to existing Port piers and would be located too close to the piers for safe fishing to occur. The AC34 races would occur prior to the commercial herring fishing season of 2012 and 2013. As concluded in the EIR (see Section 5.14.6.3, Impact BI-11, pages 5.14-81 to 5.14-98), no significant impacts on Pacific herring in the Bay are expected from project activities, and therefore no effect on the commercial harvesting of Pacific herring should occur. See Response BIM-6, below, for a more detailed discussion of commercial fisheries in the Bay.

The only other potential sources of project effects on herring population within the Bay would be from proposed dredging and pile-driving activities. As discussed in the EIR, Section 5.14.6.3, Impact BI-11, all dredging activities would be conducted in strict compliance with Dredged Material Management Office (DMMO) requirements that are specifically designed to protect important and valuable marine resources, including herring. The proposed dredging locations are not located adjacent to or near any eelgrass beds or major submerged aquatic vegetation beds.

Pile installation and pile repairs have some potential to affect herring because of noise and the temporary loss of potential spawning habitat. Those pilings receiving pile wraps could result in the temporary loss of spawning habitat while the sessile invertebrate community reestablishes itself on the pilings. Those pilings receiving wraps represent less than 1 percent of the existing pilings in the Port and within the area south of the Ferry Building.

Finally, this commenter was concerned that Figure 5.4.4 (page 5.14-66) erroneously limited known herring spawning grounds in the area south of the Bay Bridge. The commenter is correct that this graphic was produced to highlight the areas of the Central Bay north of the Bay Bridge and Piers 30-32 and the Piers 32-36 Open Water Basin, where the majority of project activities would occur and where the greatest potential effect on herring would be expected to occur. The only AC34 2012 and 2013 activity to occur south of this area is the possible use of Pier 80 for team bases. No dredging or pile driving using impact hammers is proposed to occur at Pier 80.

BIM-3c, Impacts on Sea Turtles—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-TIRN2-12
O-TIRN2-28
O-ACEC-310

- The EIR fails to analyze impacts on endangered leatherback sea turtles that use water immediately outside the Golden Gate from increased vessel traffic associated with the AC34 events and the new cruise ship terminal. [O-TIRN2-12, O-ACEC-310]
- The EIR fails to analyze impacts on leatherback sea turtles immediately outside the Golden Gate, which is to be established as critical habitat under the Endangered Species Act. Also, the EIR fails to analyze the impacts of increased litter in marine habitats, as ingested trash and marine debris can be fatal to sea turtles. [O-TIRN2-28, O-ACEC-310]

Response BIM-3c

Comments O-TIRN2-12 and O-ACEC-310 express concern that the EIR did not consider potential effects of the increased boat traffic resulting from the AC34 2012 and 2013 races and the proposed cruise terminal on leatherback sea turtles. The leatherback sea turtles have just recently begun to be observed in the coastal waters of Central California and have been observed feeding on squid in the nearshore coastal waters over deep marine canyons, such as Monterey Canyon, and farther offshore. They have not been observed in San Francisco Bay. Although the AC34 2012 and 2013 races are expected to result in additional visiting boaters to San Francisco Bay, their transit to and from the Bay is expected to occur over several weeks or months and not result in any detectable or significant increase in normal vessel traffic along the coast. Additionally the project area and race course have been refined since publication of the Draft EIR, and the primary race area is now restricted to the waters of the Bay inside the Golden Gate, thereby eliminating any potential for direct impacts from race boats or for observers on other boats to pose additional threats to sea turtles along the coast.

In the analysis of impacts for the proposed cruise terminal, it is assumed that there would be no change expected in the number of ships or the frequency of the ships using the new terminal compared to existing conditions, only that future cruise ships would likely be larger on average. Nevertheless, because there would be no change in the number or frequency of cruise ships using the proposed new cruise terminal, there would be no increase in cruise ship traffic and no additional threat to leatherback turtles from the proposed cruise terminal compared to existing conditions.

Comments O-TIRN2-28 and O-ACEC-310 express concern that plastic bags and trash from project activities would harm leatherback sea turtles. As described in EIR Section 5.16, Impact HY-1, pages 5.16-67 to 5.16-72, impacts associated with littering were determined to be less than significant because the AC34 project would include trash and litter control measures to promote waste reduction and management practices. These measures would be implemented as part of the Zero Waste Plan, which details how all waste would be handled such that it does not find its way into the Bay and out to the ocean where it might be a threat to sea turtles.

BIM-3d, Noise Impacts on Marine Mammals from Race Activities—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-314 O-ACEC-316 O-NRDC-11 O-NRDC-12

- The EIR does not discuss how Mitigation Measure M-BI-14 will be enforced to adequately address impacts on marine mammals for aircraft or who will determine if humpback whales are present. The EIR also does not consider noise impacts on other marine mammals. [O-ACEC-314, O-NRDC-11]
- The EIR must justify its claim that 2,280 spectator boats could provide a negligible contribution to overall noise levels. It should consider both ambient noise and localized noise. [O-ACEC-316]
- The EIR should provide more information and analysis of the noise impacts of boats, including the chances of boats congregating in certain viewing spots and concentrating noise levels in these areas. [O-NRDC-12]

Response BIM-3d

Comments O-ACEC-314 and O-NRDC-11 indicate concern for the potential for low-flying aircraft used to televise the races to affect marine mammals and the enforcement of proposed mitigation. Mitigation Measure M-BI-14 (Restrictions on Low-Flying Aircraft) would require that AC34-sponsored aircraft maintain a minimum altitude of 1,000 feet over Alcatraz Island and portions of Crissy Field when humpback whales are present in the Central Bay. Implementation, monitoring, and reporting of the effectiveness of this mitigation measure, similar to all measures identified in the EIR, would be required as part of the Mitigation Monitoring and Reporting Program (MMRP) and a commitment by the project sponsor as part of adoption of the CEQA findings and project approval. See Section 12.6, Response IO-4, for further discussion on enforcement of mitigation measures. In addition, to further demonstrate the project sponsor's commitment to implementing this mitigation measure, the project sponsor intends to incorporate the stipulations of this mitigation measure as part of the Water and Air Traffic Plan to be implemented as part of the AC34 events. Enforcement of this mitigation measure could be done in conjunction with other flight restrictions included in the Water and Air Traffic Plan and/or imposed by the Federal Aviation Administration.

It should be noted that the potential for a humpback whale to enter the Bay is currently fairly remote, with sightings occurring every couple of years. For a humpback whale to enter the Bay during the AC34 race events is even less potentially probable. See Response BIM-3a, above, regarding potential for marine mammal strikes and protection measures to avoid such incidents. The potential for low-flying aircraft flying at 300- to 400-foot altitudes to disturb marine mammals other than humpback whales is minimal. Gray whales will not be in the region during AC34 races. The concern for humpback whales, should they enter the Bay and be disturbed by low-flying aircraft, is that they could become disoriented as a result of the congregation of small boats present to observe the races, which could lead to a collision or serious injury to any whales. With instructions provided to observing boaters (visiting mariners information) to avoid whales and other marine mammals and requirements for any low-flying aircraft to maintain higher altitudes, the impact on whales and other marine mammals is not expected to be significant.

Comments O-ACEC-316 and O-NRDC-12 indicate concern for the potential for noise to be generated by boaters who choose to observe the AC34 2012 or 2013 races on the Bay from their vessels and the potential effect this may have on marine mammals. These commenters are concerned that the noise from the estimated 2,280 spectator boats predicted to observe the races in the Draft EIR was not accounted for when analyzing potential negative effects on marine mammals and fish inhabiting the Bay. As described in Chapter 11, subsequent to publication of the Draft EIR, the project sponsors have revised this estimate to 880 spectator vessels as the maximum number of boaters expected to potentially take part in viewing the 2013 AC34 races on a peak weekend day. This revised estimate is based in large parts on boat counts conducted during Fleet Week in October 2011, and it assumes there would be 800 recreational boats, including sailboats and non-motorized boats (e.g., kayaks) as well as powerboats.

Small watercraft, including the types of recreational boats observing the AC34 races, generate some noise while underway. The sources of this noise are many, including water striking the side of the boat, propeller noise and cavitation, engine noise, and auxiliary pumps and motors such as bilge pumps, to mention just a few. Sailboats generate some of the same noises, but because of hull design, lack of engine noise while under sail, smaller engines, and other factors, they are assumed to generate less underwater noise than powerboats. Although there are no definitive studies on the amount of underwater noise small boats are capable of generating, Wild Whales reports that a fast-traveling powerboat can generate 145 to 160 dB noise levels.[2] Wild Whales further reports that multiple boats located close to one another only increase the combined noise levels by 5 dB. These sounds decrease, with distance, as all underwater sounds do, with a 160-dB sound reported to be below 135 dB at 20 meters. Since most of the recreational boats would be underway with minimal headway while observing the AC34 races, with the exception of the engine noise, the overall noise generated by these boats can be expected to be significantly lower than the reported 145- to 160-dB levels of a vessel under high speed, when engine noise and noise generated by the hull hitting the water is greatest.

As reported in the EIR on page 5.14-89, the background noise level for San Francisco Bay is estimated at 150 dB. One contributor to this background noise level is recreational watercraft and other vessels traveling at high speeds across the Bay. The recreational boats with spectators observing the AC34 races would most likely be moving at low speeds to view the races, and thus would generate substantially reduced noise levels. For obvious safety reasons, the recreational boats are not expected to be congregated in tight packs while they are moving. The potential for underwater noise generated by boats that are observing the race would therefore be similar to background levels. In addition, the number of boats observing the races would be comparable to the number that currently participate in major on-water events, such as Fleet Week and when the Tall Ships call upon the Bay (from which the revised estimate of 800 recreational spectator boats originates). Therefore, the overall noise that these boats are expected to contribute to the Bay and the potential for noise from spectator boats to disturb, harass, or affect marine mammals or fish are expected to be less than significant. Behavior responses of marine mammals must also be considered. As stated throughout the EIR marine biological resources section, marine mammals avoid boats and humans. The one exception appears to be commercial and recreational fishing boats where sea lions who have become accustomed to humans see the opportunity for a quick meal by stealing the catch. However, it is normal for the majority of marine mammals to avoid any congregation of boats on the Bay as they do currently. The main concern is that boaters who observe a marine mammal may choose to get closer to see it, which could lead to harassment of the animal and possibly injury. The mitigation measures identified in the EIR—namely Mitigation Measure M-BI-12 (Visiting Mariners Information)—would address these concerns specifically as well as other concerns for minimizing impacts on marine mammals.

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[2] Wild Whales B.C. Cetacean Sightings Network, Noise and Cetaceans, http://wildwhales.org/noise-and-cetaceans, 2001, accessed September 19, 2011.

12.20.5 Impacts on Sensitive Marine Communities [BIM-4]

This topic is further subdivided into the following sub-topics:

- BIM-4a, Impacts on Eelgrass
- BIM-4b, Impacts on Benthic Habitats

BIM-4a, Impacts on Eelgrass—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-BCDC-15
A-MCCDA-05
A-MCCDA-14
A-RBRA-05
A-Sausalito-11
O-ACEC-315
O-FOTE-07
O-MAS-14
O-MCL-03
O-RBACS-01
I-Pfeifer-01
I-Pfeifer-02

- Areas with eelgrass beds should be avoided, particularly for mooring of vessels. If mooring does occur, the EIR should discuss shading impacts and employ mitigations to limit drag of anchors. [A-BCDC-15]
- Additional vessels in Richardson Bay could increase the number of "crop circles," to the detriment of eelgrass areas. What enforcement measures will be in place to protect eelgrass? [A-MCCDA-05, A-MCCDA-14]
- An influx of vessels dropping anchors in Richardson Bay could substantially increase impacts to the eelgrass areas. [A-RBRA-05]
- Visiting boaters unfamiliar with the shallow water depths in Richardson Bay could inflict significant damage on eelgrass beds. The EIR should consider an anchorage management plan to address this issue. [A-Sausalito-11]
- Figure 5.14-7 should clarify the location of mooring buoys near Yerba Buena Island and make eelgrass beds within Clipper Cove more obvious in the diagram. The EIR should assess potential harm to eelgrass in Clipper Cove if it becomes a major arrival point. [O-ACEC-315]
- The EIR must protect eelgrass beds from boats. [O-FOTE-07]
- Eelgrass beds at Richardson Bay should be cordoned off and clearly marked as eelgrass habitat. Visiting mariner information should be in multiple languages, and enforcement staff should be available. [O-MAS-14]
- Enforcement is needed to prevent boat moorings from destroying eelgrass. [O-MCL-03]
- The EIR should physically mark the locations of eelgrass beds and make enforcement officers available to prevent boats from anchoring in eelgrass. [O-RBACS-01]
- Sausalito is home to eelgrass, which is protected under the Clean Water Act. [I-Pfeifer-01]
- The EIR should avoid anchorage or moorings in or near eelgrass habitat. [I-Pfeifer-02]

Response BIM-4a

Many commenters express concerns about potential effects on Richardson Bay eelgrass beds from visiting boaters who would come to San Francisco Bay during the AC34 activities in 2012 and 2013. Although some visiting boaters are expected to come for the 2012 races, the majority are expected to come for the 2013 races. The EIR (Impact BI-12, pages 5.14-99 through 5.14-103) includes an analysis of impacts on eelgrass as one of the sensitive marine communities and identifies visiting boaters as the only source of those potential impacts. The potential impact on shallow eelgrass beds from boaters transiting through the beds at low tide as well as from their anchors and anchor chains was determined to be potentially significant, as were the potential effects on other marine resources that depend on eelgrass for important habitat. The commenters laud the creation of a Mitigation Measure M-BI-12 (Visiting Mariners Information) as a component of the Water and Air Traffic Plan as an important step in preventing or reducing impacts on Richardson Bay eelgrass. Commenters provide suggestions to augment the plan with measures such as marking eelgrass beds, cordoning off the beds, restricting access to the beds, and providing enforcement to prevent anchoring in the beds and other impacts on the beds from visiting boaters from occurring. These suggestions are noted.

The eelgrass beds of Richardson Bay are located within the navigable waters of the United States and, as such, only the United States Coast Guard has the authority and capability of restricting access. It is expected that few visiting boaters would attempt to anchor in Richardson Bay and that the majority of visiting boaters would prefer to use AC34-provided docking for large vessels or available guest docking at area marinas rather than anchoring in the Bay. This practice would be strongly encouraged in the visiting mariners information. Figure 5.14-7 on EIR page 5.14-101 shows locations within the Central Bay that contain known, established vessel moorings and that are also situated within eelgrass beds or in close proximity to eelgrass beds. NOAA also reports that many of these locations are documented on existing navigation charts used by boaters. Hence, visiting boaters might be expected to seek these mooring locations.

Comment O-MAS-14 remarks on distribution of the visiting mariners information, its availability in multiple languages, and other mechanics of the plan and its distribution to the boating public. As specified in Mitigation Measure M-BI-12 (EIR pages 5.14-100 through 5.14-103), the visiting mariners information shall be prepared in multiple languages and widely distributed. Means of distributing it would be via the Internet web page for the AC34 races, through social media, and through local marinas and yacht clubs, articles in national and regional boat cruising and boating periodicals, and other means, so that it reaches the widest possible audience.

Another commenter is concerned about potential dredging effects on eelgrass beds, establishment of anchoring or moorings in the Richardson Bay eelgrass beds or in eelgrass beds located elsewhere in the Bay, and the potential effect on Pacific herring that use eelgrass beds for spawning. As stated in Impact BI-12 on page 5.14-99, there are no eelgrass beds near the proposed dredging locations. Also, temporary anchors and moorings for AC34 race boats and larger visiting boats expected to attend the races would all be located within the existing Port of San Francisco facilities and along the City of San Francisco waterfront; none would be placed in Richardson Bay or in any eelgrass beds. Any permanent marinas that might be proposed along the Port waterfront as a result of the

Host Agreement would be required to undergo subsequent, site-specific CEQA analysis in the future if such proposal were to be made, and the presence of any eelgrass beds in the project location, if any, would be determined. As stated throughout Section 5.14.4, no proposed AC34 activities would occur within eelgrass beds. No temporary moorings, floating docks, wave attenuators, or piling supported barges would be placed where eelgrass beds are known to exist. Consequently, these structures would have no potential to shade eelgrass beds.

Comment O-ACEC-315 correctly indicates that, on Figure 5.14-7 (page 5.14-101), the point intended to signify the vessel mooring location adjacent to Treasure Island should be located within Clipper Cove and not on Yerba Buena Island. This comment is acknowledged, and a revised figure is included in Chapter 13 of this document. The commenter is further concerned that the eelgrass beds located at the northeast corner of Yerba Buena Island could be affected if Clipper Cove became a major arrival point for visiting boaters. This potential was considered and analyzed in the Draft EIR (Impact BI-12), along with all of the other established boat mooring locations with Central San Francisco Bay. The mooring anchorage at Clipper Cove is generally located farther within the cove and away from the eelgrass beds at the southern entrance to the cove. Also the relatively shallow depths, accessibility during low tides periods, and other navigation concerns make Clipper Cove unsuitable as an anchorage for many, if not the majority, of visiting boaters expected to come to San Francisco Bay on their boats.

In response to Comment O-ACEC-315, Figure 5.14-7 on EIR page 5.14-101 is revised to correct the mooring location at Clipper Cove on Treasure Island. Please see Chapter 13 of this document for the revised figure. This revision does not change the analysis or conclusions presented in the EIR.

BIM-4b, Impacts on Benthic Habitats—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-183	A-NPS2-186

- Bay waters offshore of Crissy Field with a depth of less than 3 meters should not be used for boat racing as this would damage benthic habitat and bottom sediments. [A-NPS2-183]
- No race activities should take place in the remnant rocky intertidal habitat between Lower Fort Mason and Pier 4. [A-NPS2-186]

Response BIM-4b

Comments A-NPS2-183 and A-NPS2-186 express concern that the sandy shallow subtidal area adjacent to Crissy Field and the natural and artificial rocky intertidal habitat between lower Fort Mason and Pier 4 would be exposed to additional damage due to race boats or visitors, respectively. The Bay waters adjacent to Crissy Field (especially less than 3 meters water depth) are too shallow and close to shore for proposed AC34 2012 and 2013 race activities to be conducted safely. As described in Chapter 11, under the AC34 Project Variant, the primary race area would be offshore of Crissy Field, not that close to shore or in water depths that shallow. As indicated in Mitigation Measure M-BI-2 (Signage at Sensitive Natural Community Areas), the project sponsors would prepare a Fencing and Signage Plan that would be designed to exclude visitors from sensitive natural community areas; the intertidal areas between lower Fort Mason and Pier 4 would be included in the listing of locations to be addressed in this plan, such that spectators would not have access to sensitive intertidal habitat and cultural resources at this location.

12.20.6 Construction Impacts [BIM-5]

This topic is further subdivided into the following sub-topics:

- BIM-5a, Construction Dredging
- BIM-5b, Construction Noise Impacts

BIM-5a, Construction Dredging—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-RWQCB-04 O-CNPS-04 O-CNPS-07

- The Regional Water Board Control Board and the Army Corps of Engineers will expect the Event Authority to submit an analysis of alternatives that minimize dredging impacts. [A-RWQCB-04]
- The dredging window should be adjusted to June 1 to September 1 due to best management practices for steelhead trout and coho salmon. [O-CNPS-04]
- Dredging would create a permanent floating dock for large yachts that would obscure views of the Bay and provide an attractive nuisance for harbor seals and sea lions. Also, the circulation of sediment throughout the Bay will eventually fill in any dredged basin. [O-CNPS-07]

Response BIM-5a

Comment A-RWQCB-04 states that the Regional Water Board Control Board and the United States Army Corps of Engineers expect the project sponsors to provide an analysis of alternatives to proposed dredging such that proposed dredging area footprints and locations, and therefore their potential impacts on marine resources, might be reduced. This analysis is being conducted as part of the permitting process for the AC34 project, and the results will be included in the permit applications to both agencies. In assessing the potential impacts of dredging on the marine resources of the Bay, it is noted that because of the age and limited use of most of the Port infrastructure, little dredging has occurred in recent decades. The project sponsors were aware that the AC34 facilities would require some dredging to improve Port infrastructure and accommodate the estimated number of boats (visiting and race) expected for the AC34 2012 and 2013 races. The analysis in the Draft EIR was intended as the worst-case scenario for dredging. As described in Chapter 11, since the issuance of the Draft EIR, the footprint and dredged material volumes have decreased for most of the anticipated locations under the AC34 Project Variant. Additionally, alternative sites are being considered and discussed with the regulatory community.

Comment O-CNPS-07 expresses concern that proposed dredging would facilitate permanent "floating docks" that would result in obscured views of the Bay and pose other impairments to Bay activities. As described in Chapter 3, Project Description, and in Response BIM-3b, above, the AC34 events would not include the building or operation of any permanent marina facilities. The AC34 improvements at Port properties would be temporary in nature, with the exception of fire/safety/access improvements, possible apron and fender repairs, and the seismic improvements at Piers 30-32. The Host Agreement between the City and the Event Authority does provide certain conditional long-term development rights, including the potential for permanent marinas, and directs that any such future development would be required to undergo additional environmental review to comply with CEQA, if and when site-specific development is proposed. See Chapter 3 for the description of temporary and permanent improvements as well as the potential long-term development that could occur under the Host Agreement.

Another concern expressed is that any dredging conducted would be negated by the "circulation of sediment throughout the Bay," which "will annually even out and fill in any such dredged locations." The comment is partially correct. Over time, because the areas being dredged are subject to daily and annual sediment circulation patterns and because of existing Port piers and infrastructure that are designed to reduce wave action and water movement, sediments suspended in the water column will settle out and eventually fill in part or all of the dredged area. This does not happen annually, but typically requires many years to occur, based on the location and other physical factors.

Comment O-CNPS-04 expresses concern that the LTMS windows for dredging did not address steelhead trout and coho salmon. Steelhead trout are only known to occur along the northern component of the Central Bay during their migration through the Central Bay, and coho salmon do not generally enter the Bay. The LTMS window for steelhead trout is only for the northern portion of the Central Bay. Since no dredging is proposed for this region of the Central Bay, concerns about dredging outside the steelhead trout LTMS approved windows is not a concern.

BIM-5b, Construction Noise Impacts—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-CDFG-02
O-ACEC-311
O-ACEC-312
O-ACEC-313
O-MAS-13
O-NRDC-08
O-NRDC-09
O-NRDC-10
O-NRDC-14
O-NRDC-15
O-NRDC-16
O-NRDC-17

- CDFG should review the proposed sound attenuation plan described in Mitigation Measure M-BI-11a. The full scope of the plan must be provided, and specific measures must be included. [A-CDFG-02, O-NRDC-08]

- The EIR should require a bubble curtain or air barrier at all times, not only when sound exceeds a certain decibel threshold. The EIR provides no scientific explanation for this decibel limit or evidence that it would be sufficient to protect marine mammals. [O-ACEC-311]
- When pile driving, the project should use a modern method of dampening the sound. The EIR should analyze the methods of bubble curtains, cushion blocks, cofferdams, or TNAP design. The best available methods should be used. [O-NRDC-09, O-ACEC-312]
- Pile driving should be scheduled around biologically important times for marine mammals, especially the harbor porpoise. They should also be scheduled to avoid impacts on fish. [O-ACEC-313, O-NRDC-10, O-MAS-13]
- The project sponsors must apply for an Incidental Harassment Authorization for the taking of small numbers of marine mammals during construction activities. [O-NRDC-14]
- The EIR does not support its claim that because there would likely be only one construction project engaged in pile driving at any one time, mammals could simply move away from sound disturbances. Sound travels great distances in water. All construction should take place when migratory marine mammals are not likely to be present. [O-NRDC-15]
- The EIR uses outdated studies to assess the effects of noise on fish. [O-NRDC-16]
- Mitigation Measure M-BI-11a relies on a sound attenuation plan that has not yet been created and cannot be commented on during the CEQA process. [O-NRDC-17]

Response BIM-5b

Comment O-NRDC-14 points out that the noise generated by pile-driving activities could result in harassment of marine mammals as defined in the Marine Mammal Protection Act and that an Incidental Harassment Authorization (IHA) from NOAA was probably warranted. The commenter is correct and an IHA has been requested from NOAA for the project. It should be noted that, under CEQA, the receipt of an IHA does not negate the need to provide mitigation to reduce impacts on marine mammals. Rather, an IHA only allows some forms of incidental and non-life-threatening harassment of marine mammals, as defined in the Marine Mammal Protection Act, to occur legally.

Several commenters express additional concerns that it is necessary to review the entire sound attenuation plan in order to assess its adequacy in mitigating pile-driving noise and that best available practices, such as bubble curtains, cushion blocks, cofferdams and/or TNAP design, for reducing pile-driving noise should be applied to piles being installed using vibratory pile drivers. As specified in Mitigation Measure M-BI-11a (pages 5.14-97 to 5.14-98), the sound attenuation plan is a document that would be developed and approved by NMFS and other concerned agencies such as the Bay Conservation and Development Commission (BCDC), United States Army Corps of Engineers, and CDFG. It would detail how the project sponsors and their contractors would achieve established acceptable noise levels in air and in the water. As one of the commenters correctly indicates, there are often different best practices and equipment that can achieve these standards. For example, over the last decade, the sound levels generated by pile drivers have steadily decreased as a result of concerns about the effects of loud noises in the air and water. The plan elements identified in Mitigation Measures M-BI-11a and M-BI-11b by themselves have been demonstrated by past studies and pile-driving activities to be sufficient in decreasing pile-driving noise to levels established to result in less-than-significant effects on fish and marine mammals; these elements demonstrate the feasibility of the measure in effectively reducing the impact to a less-than-significant level. Furthermore, one of the best methods for reducing pile-driving noise and its attenuation horizontally through the water column is the use of a vibratory hammer, which generates much lower sound levels (measured at 150 to 180 dB at 10 meters) that also attenuate out over shorter distances before reaching background. Background levels for San Francisco Bay are estimated at 150 dB. Similarly, the specific method with which the project sponsors contractor(s) choose to achieve the construction noise performance standard of less than 90 dB in air is not important. What is important is that the mitigation measure is feasible and includes a clear performance standard such that the selected mitigation actions can be monitored and adaptively managed. Furthermore, the application of additional best practices, as suggested by one commenter, to the vibratory hammer installation of temporary piles would provide little to no significant decrease in the noise generated and would serve to prolong the time period over which pile driving must occur, therein exposing fish and marine mammals to increased noise over a substantially longer period with little reduction in the noise levels generated.

Since the release of the Draft EIR, additional project updates have occurred and are described in Chapter 11. One of the project refinements under the AC34 Project Variants is the potential use of a limited number of 24-inch concrete pilings as part of the Piers 30-32 seismic upgrading. The use of 24-inch concrete pilings would not result in any additional risk of impact, and with the implementation of Mitigation Measures M-BI-11a and 11b the impact would remain less than significant after mitigation.

As a result of this variation, Tables 5.14-6 and 5.14-7 on pages 5.14-90 and 5.14-91, respectively, are updated as shown below (deleted text is shown as ~~strikethrough~~ and new text is underlined). These revisions do not change the analysis or conclusions presented in the EIR.

Comment O-NRDC-15 indicates concern regarding the potential for cumulative impacts on marine mammals, specifically whales. The commenter reasons that, since the seasonal migration periods for gray and humpback whales essentially encompass the entire year and it is unlikely that only one project on the list of cumulative projects provided would be underway at the same time as the AC34 activities in 2012, some impact from construction noise would occur and assuming simple avoidance by the marine mammals is inadequate for concluding that impacts would be less than significant. Careful review of the list of potential projects that could be underway at the same time as the proposed project and the time frames for those projects indicates that it is highly unlikely that any of them, especially the Clipper Cove marina improvement project, completion of the Oakland-Bay Bridge, and the myriad of onshore Port improvement activities, will be conducted concurrently during the 2012 work windows when impact hammer pile driving at Pier 30-32 would be scheduled to occur; or in the cases where these projects have already begun, it is unlikely they will be engaged in in-water noise-generating work concurrent with this time period. The in-water noise analysis conducted and presented in the EIR on pages 5.14-88 through 5.14-96 determined that, for the majority of the piles installed at Piers 30-32 and all of the piles installed for the temporary floating dock pilings that would

TABLE 5.14-6 [REVISED]
ESTIMATED NEAR-SOURCE UNDERWATER NOISE LEVELS FROM STEEL PILE DRIVING

Pile Size/Type	Relative Water Depth	Distance from Piling Measurement Taken	Average Sound Pressure Peak (dB)	SEL[2] (dB)	Attenuation Device
Vibratory Hammer[1]					
12-inch Steel	5 meters	10 meters	165-171	150-155	None
24-inch Steel	15 meters	10 meters	175-182	160-165	None
72-inch Steel	5-30 meters	10 meters	183-195	160-180	None
Impact Hammer					
24-inch Steel[3]	-	10 meters	205	178	None
24-inch Steel[3]	-	10 meters	200	173	Bubble curtain
66-inch Steel[1]	<5 meters	30 meters	203	173	None
96-inch Steel[1]		10 meters	220	194	None
24-inch Square Concrete[1]	3-4 meters	10 meters	185	RMS[5] = 173	None
24-inch Square Concrete[1]	3-4 meters	20 meters	178	RMS = 165	None
24-inch Octagonal Concrete[1]	10-15 meters	10 meters	184	166	None
24-inch Octagonal Concrete[1]	10-15 meters	100 meters	174	152	None
16-inch Concrete[1]	10 meters	10 meters	184	RMS = 173	None

[1] Source: Caltrans. 2009. Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish. Final Report. Prepared for California Department of Transportation by ICF Jones & Stokes and Illingworth and Rodkin, Inc. February 2009. http://www.dot.ca.gov/hq/env/bio/files/Guidance_Manual_2_09.pdf.

[2] SEL- sound Exposure Level (SEL) for 1 second of continuous driving.

[3] URS. 2011. Draft Environmental Impact Report for the Pier 36/Brannan Street Wharf Project. Case No. 2009.048E. State Clearinghouse No. 2009122058. Prepared for the San Francisco Planning Department. February 9, 2011.

[4] URS. 2011. Draft Environmental Impact Report for the Pier 36/Brannan Street Wharf Project. Case No. 2009.048E. State Clearinghouse No. 2009122058. Prepared for the San Francisco Planning Department. February 9, 2011.

[5] RMS is Root Mean Square

TABLE 5.14-7 [REVISED]
ESTIMATED IMPACT HAMMER PILE DRIVING SOUND LEVELS AND DISTANCES TO CRITERIA LEVELS

Pile Type	Measured Sound Levels[1] (dB)			Distance Required to Reach Sound Level Thresholds[2] (feet)		
	Peak Sound Level	SEL	Root Mean Square (RMS) Sound Level	Peak Sound Level 206 dB	Accumulated Sound Level 187 dB (> 2g fish)	Accumulated Sound Level 183 dB (< 2g fish)
24-inch (concrete)	184	166	-	-	59	108
66-inch (steel)	203	173	185	-	154	289
90-inch (steel)	214	190	203	223	1,410	2,608

[1] The distance at which sound levels were measured were 30-meters for the 66-inch piling and 10-meters for the 90-inch piling

[2] Calculated according to protocols outlined in: Caltrans. 2009. Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish. Final Report. Prepared for California Department of Transportation by ICF Jones & Stokes and Illingworth and Rodkin, Inc. February 2009. http://www.dot.ca.gov/hq/env/bio/files/Guidance_Manual_2_09.pdf.

employ vibratory pile drivers, the noise levels would be below those known to result in not only acute barotrauma to fish and mammals but also harassment of pinnipeds or cetaceans beyond a couple hundred feet. It is only during the proposed Piers 30-32 seismic retrofit efforts, when larger concrete and steel pilings would need to be installed with an impact hammer, that noise levels have the potential to achieve levels high enough to be of concern, and only out to a distance of 500 meters, at which point background noise levels are expected to be achieved.

Additionally, in the specific case of whales, it is important to note that no migration occurs within the Bay; migration occurs only offshore and on an annual basis. Each year, about 10 gray whales and possibly one humpback might enter the Bay. Most of these incursions into the Bay do not extend beyond the western portion of the Central Bay (the area between the Golden Gate and Alcatraz Island). This area of the Central Bay is several miles from the Piers 30-32 pile-driving activities where the concern for pile-driving noise would occur. Finally, because the main shipping channel to the Port of Oakland is along the San Francisco waterfront, whales that swim farther into the Bay and swim toward the South Bay typically swim along the eastern channel between Oakland and Treasure Island, placing them farther away from the Piers 30-32 work and beyond the range of expected underwater noise transmissions from pile driving. The conclusion remains that potential cumulative noise impacts on marine mammals would be less than significant.

Similar to the comment concerning the potential impact of noise on migrating whales, Comments O-ACEC-313 and O-NRDC-10 recommend that the project schedule impact hammer pile driving to avoid whale migration periods and calving/pupping seasons of pinnipeds and cetaceans, especially the harbor porpoise. All of these concerns are evaluated as part of the assessment of construction noise in the EIR. As discussed in the EIR (page 5.14-94), the waters of the Bay adjacent to where pile-driving activities occur are only used by harbor seals and sea lions for foraging. The nearest pupping sites for harbor seals are in the South Bay and north Central Bay, which are both too far away to be affected by the proposed pile-driving noise. Similarly, no whale or harbor porpoise calving areas are present, nor do gray and humpback whales migrate near where any pile driving is scheduled to occur. Specific to harbor porpoises, their activities in the Bay are primarily concentrated in the area of the Central Bay between the Golden Gate, Angel Island, and the north shore of San Francisco near Crissy Field.[3] Only limited vibratory pile driving would occur along the northern San Francisco shoreline and, as stated above, the impact hammer pile driving that poses the principal risk to marine mammals would only occur at Piers 30-32, several miles to the south of where harbor porpoises are documented to occur and too far away for pile-driving noise from project construction activities to be detected. Also, background in-water noise levels for much of San Francisco Bay are estimated at 150 dB, substantially higher than the reported 120 dB of pulsed sounds mentioned by the commenter as a level at which harbor porpoises abandon habitat. The fact that the harbor porpoise population appears to be increasing in San Francisco Bay would seem to contradict this assertion, but what is not mentioned by the commenter is that the 120-dB sound level cited originated from an air gun that operates at much lower frequencies than are generated from pile driving. When assessing noise impacts, both the dB level generated and the frequency of the noise are important.

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[3] William Kenner, "Safe harbor; Welcoming Porpoises Back to San Francisco Bay," *Bay Nature*, http://baynature.org/articles/jul-sep-2011, July-September 2011.

Comment O-NRDC-15 concerning pile-driving noise and potential effects on fish questions the validity of a 20-year-old study finding that sound levels below 187 dB do not result in acute physical damage or mortality. An interagency study and guidance document (Fisheries Hydroacoustic Working Group, 2008) that is cited as a primary reference source for the analysis of noise on marine fish and mammals is only a few years old and also establishes 183 dB and 187 dB as key noise thresholds for fish. The commenter further suggests that "more up to date" data be used to assess noise impacts. The study cited concerning the establishment of the 187-dB acute barotrauma noise level is considered by marine scientists and the regulators, particularly NMFS and CDFG, to be the cornerstone study, and most subsequent work has focused on the lower noise levels at which altered behavior (rather than acute impact) occurs. This is the ultimate basis of the analysis conducted in the EIR. Table 5.14-8 (page 5.14-92) specifically cites numerous scientific studies conducted in recent years that establish these lower levels of sound effects. It should be noted that many of these sound levels are either below or close to what is considered ambient noise for San Francisco Bay (150 dB). For vibratory hammers, these lower levels are typically achieved at a distance of only a few feet from the source. The measures required in Mitigation Measures M-BI-11a and M-BI-11b are expected to achieve these lower sound levels within a short distance of the sound source and therefore would reduce impacts to less-than-significant levels. Regarding Comment O-MAS-13, work windows to reduce impacts on fish are included in Mitigation Measure M-BI-11a.

12.20.7 Commercial Fisheries [BIM-6]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-CDFG-03	O-CNPS-03

- The EIR should address how the project will avoid impacts to commercial and recreational fishing. [A-CDFG-03]
- The EIR should consider fishing interests of San Francisco Bay to prevent logistical conflicts. [O-CNPS-03]

Response BIM-6

Several comments (A-CDFG-03 and O-CNPS-03) were submitted concerning potential effects on commercial and recreational fishing, both the resource and the fishermen. The EIR does not address potential effects on commercial or recreational fishing because economic and social impacts are not considered a significant effect on the environment under CEQA.[4] As such, the following discussion of the potential effects of the proposed project on commercial and recreational fishing is provided for informational purposes only.

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[4] CEQA Guidelines Section 15382.

San Francisco Bay-Delta Commercial and Recreational Sport Fisheries

Many important commercial and recreational fish species are known to spend a portion of their life history within coastal estuaries such as the San Francisco Bay-Delta. Some (e.g., Dungeness crab, Pacific herring, Chinook salmon, steelhead, white and green sturgeon) reside predominantly as adults in the ocean waters beyond the Golden Gate but spend their juvenile life stage or a portion of their adult life stage within the estuary itself. Others (e.g., Bay shrimp) spend their entire life histories within the Bay-Delta proper. As a result, activities that can have a negative effect on juvenile or adult fish and macroinvertebrate populations that are targeted by either commercial or recreational fishermen can have a greater geographic impact than just within the San Francisco Bay region. For the purposes of this analysis, the environmental setting area encompasses primarily Central San Francisco Bay and those fish and invertebrate species that are harvested in the nearshore coastal areas of Central California and whose life history has a key relationship with the waters of the Central Bay.

Commercial Fisheries

For inland marine landings specific to San Francisco Bay, only San Francisco landing data were used for this analysis. It should be noted that commercial fishing is a constantly changing endeavor. Although many species of fish or invertebrates (e.g., Chinook salmon, Dungeness crab, sablefish, herring) may be commercially caught on an annual basis, other fisheries, such as rock cod and Pacific herring, may only be commercially caught for a few years in a given region as a result of short-term environmental conditions, market shifts, population declines in one species that prompt harvesting of a less desirable species, and other factors. It should also be noted that many commercial fisheries operate on a predictable annual cycle, and that fishing pressure for certain fisheries may be nonexistent during the timing associated with the proposed project. Each of these issues associated with specific fisheries present is discussed in more detail below.

At present, only three species of fish and macroinvertebrates are harvested commercially in the San Francisco Bay-Delta: Bay shrimp (*Crangon franciscorum*), Pacific herring (*Clupea pallasi*), and Northern anchovy (*Engraulis mordax*). Brine shrimp (*Artemia spp)* are raised in most of the South Bay salt ponds but do not use Central San Francisco Bay at any stage of their life history and are therefore not included in this analysis. Finally, the San Francisco Bay-Delta, especially the Central Bay region, provides a critical rearing habitat for Dungeness crab (*Cancer magister*). Bay-Delta grown Dungeness crab juveniles account for a large proportion of crabs harvested in Central California offshore waters.

CDFG commercial ocean fishing landing data, reported in pounds, for the San Francisco region was compiled for the 5-year period from 2005 to 2009 (see **Table 12.20-1**), and for the August–September period within those years (see **Table 12.20-2**), coinciding with the timing for the proposed AC34 2012 and 2013 project activities and races. The following sections provide brief descriptions of each fishery.

TABLE 12.20-1
COMMERCIAL LANDINGS AND VALUE OF KEY SPECIES LANDED IN SAN FRANCISCO BAY FOR THE YEARS 2005 TO 2009

Taxa	2005	2006	2007	2008	2009
Pacific herring	0 pounds	0 pounds	0 pounds	0 pounds	0 pounds
	$0	$0	$0	$0	$0
Pacific herring eggs on kelp	0 pounds	520 pounds	18,726 pounds	32,038 pounds	6,654 pounds
	$0	$130	$225	$6,408	$41,588
Pacific herring roe	289,481 pounds	1,490,853 pounds	576,210 pounds	1,379,997 pounds	1,013,610 pounds
	$61,969	$416,239	$108,741	$587,852	$479,438
Dungeness crab	3,668,533 pounds	3,773,768 pounds	1,493,123 pounds	1,872,916 pounds	1,961,901 pounds
	$6,693,840	$7,553,057	$4,127,528	$6,073,363	$4,700,599
Bay shrimp	52,055 pounds	38,457 pounds	50,114 pounds	45,873 pounds	69,527 pounds
	$199,567	$159,745	$225,505	$194,220	$299,779
Northern anchovy	29 pounds	155,400 pounds	0 pounds	91 pounds	0 pounds
	$29	$4,662	$0	$32	$0

SOURCE: California Department of Fish and Game (CDFG), Commercial Ocean Fishing, Final data for Years 2005 through 2009. http://www.dfg.ca.gov/marine/fishing.asp#Commercial), 2011.

TABLE 12.20-2
COMMERCIAL LANDINGS OF KEY SPECIES LANDED IN SAN FRANCISCO BAY FOR THE YEARS 2005 TO 2009 (AUGUST AND SEPTEMBER LANDINGS ONLY)

	2005	2006	2007	2008	2009
Pacific herring	0 pounds	0 pounds	0 pounds	0 pounds	0 pounds
Herring eggs on kelp	0 pounds	0 pounds	0 pounds	0 pounds	0 pounds
Pacific herring roe	0 pounds	0 pounds	0 pounds	0 pounds	0 pounds
Dungeness crab	0 pounds	0 pounds	0 pounds	0 pounds	0 pounds
Bay shrimp	15,705 pounds	10,946 pounds	9,420 pounds	7,048 pounds	7,668 pounds
Northern Anchovy	15 pounds	0 pounds	0 pounds	0 pounds	0 pounds

SOURCE: California Department of Fish and Game (CDFG), Commercial Ocean Fishing, Final data for Years 2005 through 2009. http://www.dfg.ca.gov/marine/fishing.asp#Commercial, 2011.

Pacific Herring (Herring, Herring Roe, and Herring Eggs on Kelp). Pacific herring (*Clupea pallasi*) spawn on vegetation in intertidal and shallow subtidal areas in San Francisco Bay and school as juveniles within the Bay. After a period of several months to more than a year, juveniles migrate to offshore areas to continue maturing until reaching adulthood and returning to the Bay to spawn. Section 5.14.4.4 of the Draft EIR provides additional detail on Pacific herring spawning areas in the Central Bay.

The Pacific herring population and the size of the fishery depend on oceanic and Bay conditions. As a result, population sizes can fluctuate widely from year to year. According to CDFG, these fluctuations appear to be linked to El Niño events.[5] Reported increases in eelgrass (*Zostera marina*) bed acreage in Central Bay[6] could also assist in increased spawning and populations. In addition, Pacific herring landings have varied greatly over the past century with fluctuating market demand that has shifted among its uses for fishmeal, human consumption, bait, and pet food. In 1973, the market came into its most recent configuration in primarily supplying roe (fish eggs) for Japanese consumption. Since then, herring in San Francisco Bay has been harvested primarily for its roe, with only small amounts of whole herring marketed for other purposes.[7]

Pacific herring landed in San Francisco Bay are currently marketed in one of three forms: whole fish, sac-roe and roe on kelp, or herring eggs on kelp. Landing data for the period of 2005 through 2009, summarized in Table 12.20-1, indicate that herring roe made up the vast majority of the market. Whole herring fish were not reported as landed within this reporting period, and were last reported landed in San Francisco Bay in January 2004, when 77,040 pounds were landed at a value of over $20,000.[8]

The herring sac-roe fishery in California is limited to the four largest herring spawning areas: San Francisco Bay, Tomales Bay, Humboldt Bay, and Crescent City Harbor. San Francisco Bay has the largest spawning population of herring and produces more than 90 percent of the state's annual herring catch.[9] This fishery is managed through a limited entry system that began with 17 permits in 1973-1974, peaked with over 450 permits in the 1990s, and declined to 185 permits issued for the 2010-2011 season.[10]

Beginning with the 1984-1985 season, a sac-roe permittee received a permit on an experimental basis to harvest roe on kelp, or herring eggs on kelp, using fronds of giant kelp (*Macrocystis spp.*) suspended from unenclosed floating rafts. The kelp is brought into the Bay from the coast. The end product is also marketed to the Japanese food industry. For the 2010-2011 season, four herring eggs on kelp permits were issued,[11] which are available to permittees willing to trade in their sac-roe permits. It should be noted that none of the landings reported for Pacific herring (whole fish, sac roe, or herring eggs on kelp) in San Francisco Bay occur within the months of July through September (see Table 12.20-2),[12] when the AC34 races are proposed to occur, and almost all of the commercial harvesting of Pacific herring occurs adjacent to the Point Pinole-Richmond eelgrass beds.

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[5] Barnhart, R.A., *Species profiles: life histories and environmental requirements of coastal fishes and invertebrates (Pacific Southwest) – Pacific herring,* U.S. Fish Wildlife Service Biol. Rep. 82(11.79), United States Army Corps of Engineers, TR EL-82-4. 14 pages, 1988.

[6] Merkel & Associates, "San Francisco Bay Eelgrass Inventory; October-November 2009," prepared for the California Department of Transportation and NOAA National Marine Fisheries Service, November 2010.

[7] California Department of Fish and Game (CDFG), Commercial Ocean Fishing, Final data for Years 2005 through 2009, http://www.dfg.ca.gov/marine/fishing.asp#Commercial, 2011.

[8] Ibid.

[9] Ibid.

[10] California Department of Fish and Game (CDFG), FAQ Sheet San Francisco Bay 2010-2011 Season, 2010.

[11] Ibid.

This fishery is closely monitored and controlled so that, barring catastrophic events, it can be expected to continue fluctuating with annual oceanographic conditions and market demand. Based on the low numbers of herring returning from the 2003-2004, 2004-2005, and 2005-2006 year classes, emergency regulatory action by the California Fish and Game Commission was taken in 2009 to close the ocean waters fishery to protect the San Francisco Bay Pacific herring stock. CDFG also recommended a zero harvest or no fishery option to the commission for the 2009-2010 San Francisco Bay gill net and herring-eggs-on-kelp fisheries, and a closure of the 2010 ocean waters fishery.[13] The herring fishery was re-opened for the 2010-2011 season, with a total quota set at 1,920 tons, divided between the different markets.[14]

Bay Shrimp. The Bay shrimp (*Crangon franciscorum*) is the dominant shrimp in most Pacific coast estuaries, and the largest and most abundant large shrimp in San Francisco Bay. Bay shrimp are primarily found in the lower South Bay and from the North Bay to Suisun and Honker Bays. Juveniles migrate upstream to rear in shallow brackish water for several months. Maturing shrimp migrate downstream to cooler, higher salinity areas for reproduction. Abundance of Bay shrimp has been directly linked to freshwater outflow from the Delta.[15] The Interagency Ecological Program abundance index for Bay shrimp reached a decade high in 2006, associated with high spring outflow that year.[16]

Beam trawls are used to harvest shrimp in San Francisco Bay waters east of the Golden Gate Bridge and in San Pablo Bay. The Bay shrimp fishery between 2005 and 2009 averaged 51,000 pounds per year, with a range of approximately 40,000 to 70,000 pounds per year (see Table 12.20-1). The commercial value of these landings has ranged between approximately $150,000 and $300,000 (see Table 12.20-1). At present, this fishery is market-driven. Since the product is used almost exclusively for angler bait, the market demand is not expected to change significantly in the foreseeable future. Bay shrimp is the only commercial species regularly harvested in recent years during the months of August and September, when the AC34 2012 and 2013 races are proposed to occur (see Table 12.20-2).

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[12] California Department of Fish and Game (CDFG), Commercial Ocean Fishing, Final data for Years 2005 through 2009, http://www.dfg.ca.gov/marine/fishing.asp#Commercial, 2011.

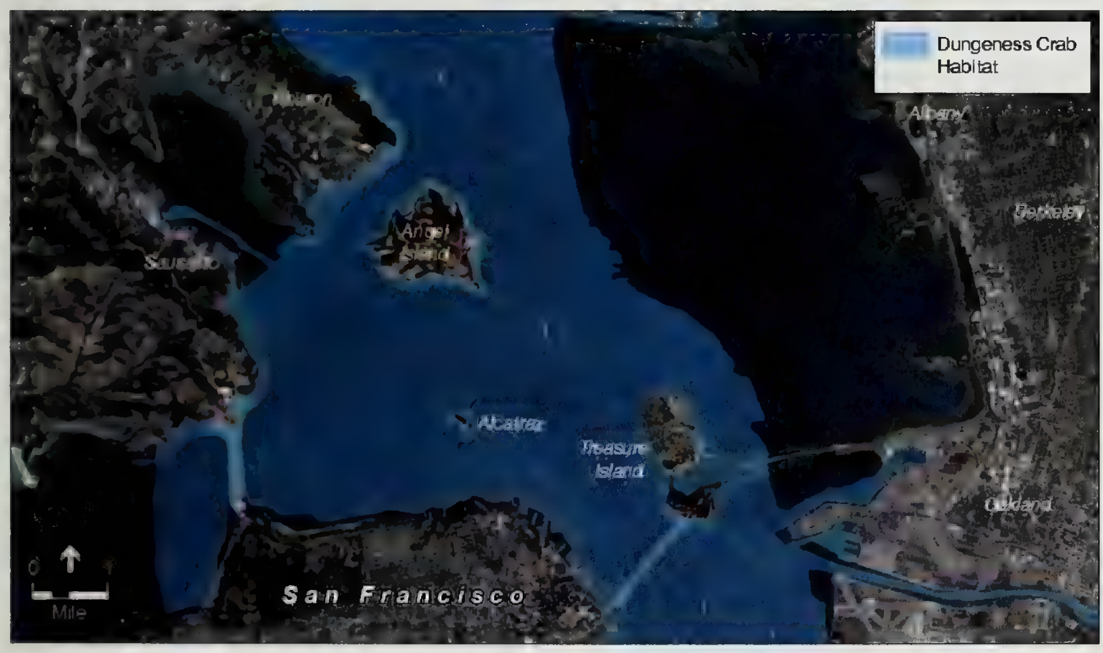
[13] California Department of Fish and Game, California Fish and Game Commission Statement of Proposed Emergency Regulatory Action, Emergency Action to Amend Subsection (h)(6) of Section 163, Title 14, California Code of Regulations, Re: Pacific Herring Open Ocean Commercial Fishing Regulations, www.fgc.ca.gov/regulations/new/2009/163es.pdf, 2009.

[14] California Department of Fish and Game (CDFG), FAQ Sheet San Francisco Bay 2010-2011 Season, 2010.

[15] Interagency Ecological Program for the San Francisco Estuary (IEP), IEP Newsletter, Volume 21, Number 2, Spring 2008.

[16] Ibid.

Dungeness Crab. Although Dungeness crabs (*Cancer magister*) are not commercially harvested within San Francisco Bay, they are a valuable commercial and recreational species for the Bay Area. The San Francisco Bay estuary plays a key role in the growth and development of juvenile crabs.[17] Dungeness crabs reproduce in the ocean in winter; surviving juveniles then migrate nearer to shore the following spring. Most rearing of juvenile crabs within the region takes place in nearshore coastal waters, but estuaries such as Humboldt Bay and San Francisco Bay (see **Figure 12.20-1**) provide important nursery areas for the young.[18] These juveniles return to adjacent coastal waters after approximately 8 to 10 months.[19] Crabs nurtured within the estuary are larger than cohorts who remained in the ocean; they also represent a larger percentage of harvested crabs inhabiting coastal waters off the shore of San Francisco.[20]



SOURCE: NOAA[21]

Figure 12.20-1
Dungeness Crab Habitat within Central San Francisco Bay

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[17] California Department of Fish and Game Marine Region (CDFG), *Annual Status of the Fisheries Report through 2003*, prepared for the California Fish and Game Commission, December 2004.

[18] Ibid.

[19] Interagency Ecological Program for the San Francisco Estuary (IEP), IEP Newsletter, Volume 23, Number 2, Spring 2010.

[20] Pauley, G. B., D. A. Armstrong, R. Van Citter, and G. L. Thomas, *Species profiles: life histories and environmental requirements of coastal fishes and invertebrates (Pacific Southwest) Dungeness crab*, USFWS Biological Report 82(11.121), 1989.

[21] NOAA, San Francisco Bay Project Evaluation System Dredging Project interactive mapping database. http://mapping2.orr.noaa.gov/website/pies_piledriving/viewer.htm, accessed March 18, 2011.

Dungeness crabs are landed as far south as Santa Barbara and northward to Crescent City. Eureka, San Francisco, and Bodega Bay report the largest landings in the state.[22] The Central California fishery encompasses a 400-square-mile area, including the Gulf of the Farallones and waters north to the Russian River. During the 1950s, the Dungeness crab fleet consisted of 200 to 250 boats. Many boats left the fleet as the fishery began to decline in the 1960s. Currently, the fleet consists of about 190 vessels.[23] The commercial Dungeness fishery is managed based on crab sex, season, and size; only male crabs may be retained in the commercial fishery. The Central California season opens November 15 and continues through June 30. The fishery also imposes a minimum size restriction of 6.25 inches across the widest part of the carapace, the protective covering on the back of the crab.

Between 2005 and 2009, Dungeness crab was the highest value commercial landing for San Francisco (see Table 12.20-1). Landings here averaged 2.5 million pounds of crab over the 5 years with an average landing value of $5.8 million. As mentioned above, Dungeness crab populations undergo periodic cycles. In 2007, the reported landing for crab at San Francisco decreased from 3.8 million pounds in 2006 to 1.5 million pounds in 2007 (see Table 12.20-1). Dungeness crab populations and harvests will likely continue to fluctuate on a multi-year cycle and increasing ocean water temperatures could result in a shift in the population northward, since adults and juveniles prefer colder waters.[24]

Northern Anchovy. The northern anchovy (*Engraulis mordax*) that inhabit San Francisco Bay for part of the year are part of the Central California subpopulation.[25] They typically winter in deeper waters off the California coast and return to shallower inland waters in the spring, including identified areas of the Central Bay (see **Figure 12.20-2**).

Anchovies stay predominantly in deeper depths during daytime and migrate toward the surface at night.[26]

The northern anchovy is the most abundant fish in the Central Bay and an important prey species for many fishes and seabirds. Northern anchovy are harvested in San Francisco Bay for use as both live and frozen bait for sport fishermen. Primarily, northern anchovy are harvested in the Central Bay using a purse seine type net. Like the Bay shrimp fishery, harvests are market-driven by demand by sport fishermen. Northern anchovy landings in San Francisco Bay were virtually nonexistent between 2005 and 2009; the one exception to this was in 2006, when more than 150,000 pounds were landed (see Table 12.20-2).

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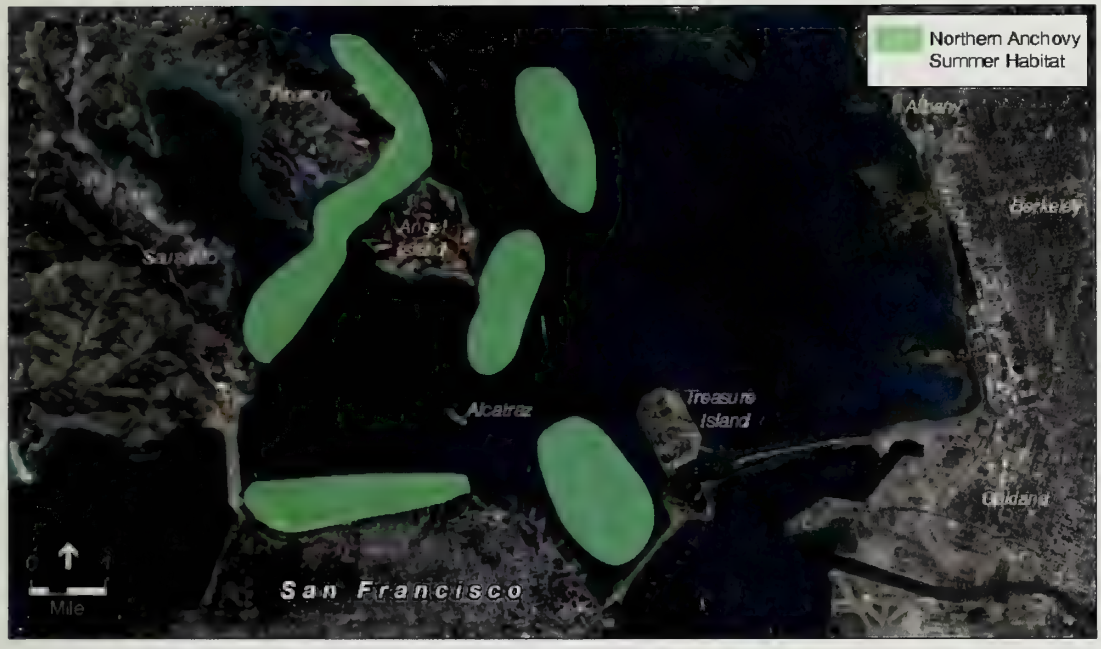
[22] California Department of Fish and Game (CDFG), Final California Commercial Landings for 2008, http://www.dfg.ca.gov/marine/fishing.asp#Commercial, 2009.

[23] California Department of Fish and Game Marine Region (CDFG), *Annual Status of the Fisheries Report through 2003*, prepared for the California Fish and Game Commission, December 2004.

[24] Pauley, G. B., D. A. Armstrong, R. Van Citter, and G. L. Thomas, *Species profiles: life histories and environmental requirements of coastal fishes and invertebrates (Pacific Southwest) Dungeness crab*, USFWS Biological Report 82(11.121), 1989.

[25] Kucas, S.T., Jr. and T. J. Hassler, *Species profiles: life histories and environmental requirements of coastal fishes and invertebrates (Pacific Southwest)--northern anchovy*, United States Fish and Wildlife Service, Biol. Rep. 82(11.50), United States Army Corps of Engineers, TR EL-82-4, 11 pages, 1986.

[26] Ibid.



SOURCE: NOAA[27]

Figure 12.20-2
Northern Anchovy Central Bay Summer Habitat

Aquaculture and Ocean Mariculture

Throughout the state, California commercial marine aquaculture facilities predominantly raise abalone, oysters, clams, scallops, seaweed, and mussels. Inland-based hatcheries and aquaculture farms raise trout, steelhead, salmon, tilapia, catfish, crayfish, striped bass, sturgeon, and other fish species for market sale and stock replenishment.[28] No mariculture operations currently exist within San Francisco Bay, but both Drakes and Tomales Bays, in Marin County to the north, support major oyster farms.

Recreational Sport Fisheries

Recreational sport fishing occurs in all regions of the estuary as well as in the coastal and open ocean areas beyond. Recreational fishing occurs from shore, pier, personal small craft, and charter boat.

Recreational fish catch as reported by the Recreational Fisheries Information Network (RecFIN) for the marine inland waters of the estuary during the period 2006 to 2010 are summarized in **Table 12.20-3**. These numbers are subject to the caveats discussed previously. It should also be noted that some species represented within RecFIN results for marine inland waters do not

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[27] NOAA, San Francisco Bay Project Evaluation System Dredging Project interactive mapping database. http://mapping2.orr.noaa.gov/website/pies_piledriving/viewer.htm, accessed March 18, 2011.

[28] National Oceanic and Atmospheric Administration (NOAA), California Aquaculture, http://aquaculture2007.noaa.gov/pdf/California_June262007.pdf, 2007.

TABLE 12.20-3
ESTIMATED SAN FRANCISCO BAY MARINE INLAND WATERS RECREATIONAL FISH LANDINGS FOR THE PERIOD 2006-2010

All Months			August–September Period Only					
Species	**Total, 2006-10**	**% of All Species**	**2006**	**2007**	**2008**	**2009**	**2010**	**% of Total Catch**
Jacksmelt	970,827	24.1%	33,789	13,503	8,400	48,874	16,588	12.5%
Northern Anchovy	562,303	14.0%	98,181	47,934	13,249	25,825	144,155	58.6%
Shiner Perch	242,026	6.0%	18,810	7,866	10,153	4,434	3,724	18.6%
California Halibut	210,159	5.2%	4,003	8,910	12,447	10,324	2,369	18.1%
Leopard Shark	189,174	4.7%	19,268	8,656	2,998	8,819	4,699	23.5%
Pacific Sardine	188,285	4.7%	464	0	553	102,968	3,837	57.3%
Striped Bass	174,508	4.3%	8,931	17,645	3,700	5,048	774	20.7%
American Shad	167,581	4.2%	4,151	0	0	425	0	2.7%
Bat Ray	147,949	3.7%	10,245	5,533	3,761	5,361	4,424	19.8%
Silverside Family	130,979	3.3%	23,088	1,076	1,750	368	0	20.1%
Dungeness Crab	76,170	1.9%	0	0	0	0	9,749	12.8%
Pacific Staghorn Sculpin	71,436	1.8%	4,146	1,327	7,024	2,310	5,823	28.9%
Unidentified (Sharks)	64,932	1.6%	4,194	3,349	4,926	2,477	329	23.5%
Red Rock Crab	63,538	1.6%	0	0	0	0	10,138	16.0%
Pacific Herring	59,950	1.5%	0	0	0	88	0	0.1%
Brown Smoothhound	58,752	1.5%	1,901	1,101	2,427	4,845	7,119	29.6%
Chub (Pacific) Mackerel	50,016	1.2%	5,481	47	0	15,721	0	42.5%
Surfperch Family	48,833	1.2%	3,490	2,496	458	2,181	255	18.2%
White Croaker	43,519	1.1%	3,195	3,059	1,229	459	251	18.8%

NOTE: Identified species make up at least 1 percent of the total fish reported. Estimates include number of fish examined by surveyors (A) plus number reported by anglers, both dead (B1) and live (B2). Numbers reported for individual years represent estimates for the months of August and September only, and the resultant percentage of total catch represents the proportion of the species landed during those months over the 5-year period.

SOURCE: Recreational Fisheries Information Network (RecFIN), Recreational Fisheries Landing Data, http://www.recfin.org/, accessed March 18, 2011.

inhabit the Central Bay. However, these data do provide an indicator of the breakdown of fish caught by recreational fishermen over this period in the Bay.

Within Table 12.20-3, estimates are presented for fish caught during the overall 5-year period, as well as the 2-month period within each year coinciding with the proposed project (August–September). For several species (e.g., California halibut), the estimates for number of fish caught during this 2-month window are used to approximate the expected landings if catch were uniformly distributed throughout the year (i.e., approximately 2 of 12 months, or 17 percent of the year). For other species, the landings during these periods are disproportionately high (e.g., northern anchovy, 59 percent) or disproportionately low (e.g., Pacific herring, less than 1 percent).

In addition to well-publicized declines in some of the sensitive species inhabiting the estuary, estimated populations of some of the more popular sport fish have declined in recent decades. Descriptions of trends within a few select sport fish are presented below.

Jacksmelt (*Atherinopsis californiensis*). The jacksmelt seasonally migrates from nearshore coastal waters to bays and estuaries to spawn and rear. Most reproduction within the San Francisco Bay estuary occurs from September to April. Juvenile jacksmelt rear in shallow areas of South, Central, and San Pablo Bays in late spring and summer, then migrate to deeper waters within the Bay before migrating out of the San Francisco Bay estuary in the fall.

In 2009, over 50 percent of the total jacksmelt captured through Interagency Ecological Program trawling efforts occurred in the Central Bay. The 2009 CDFG age-0 jacksmelt abundance index was the second highest index on record and marks the third consecutive year of above average indices; this follows the general trend of increased abundance in years of low Delta outflow.[29] Sport landings reflect these higher abundances, as jacksmelt were the most frequently reported sport fish landed in San Francisco Bay inland marine waters (see Table 12.20-3).

Northern Anchovy (*Engraulis mordax*). The northern anchovy is the most common fish in the lower San Francisco Bay estuary and is an important prey species for many fishes and seabirds. Within Bay inland marine waters, the northern anchovy is second only to jacksmelt in the number of landings reported by recreational fishermen (see Table 12.20-3).

The 2009 Interagency Ecological Program abundance index for northern anchovy was the fourth lowest on record, and only half of the study-period mean.[30] This marks the fourth consecutive year of declining indices, following the trend of colder ocean temperatures since 2006. For the estuary as a whole, CDFG collected northern anchovies in tows in each month of 2009, the latest year for which data have been analyzed to date. CDFG reported catch per unit effort was highest in the Central Bay and peaked during August.[31]

Shiner Perch (*Cymatogaster aggregata*). Shiner perch live in marine and estuarine environments, including the San Francisco Bay estuary. They have a wide salinity tolerance, although they typically inhabit areas above 10 parts per thousand.[32] During winter or periods of high river flow, shiner perch migrate toward coastal areas and return to the estuary in summer to spawn.

Shiner perch were most commonly found in CDFG tows in the Central Bay. CDFG abundance indices for shiner perch were calculated at the lowest level since 1994 and approximately one-quarter of the historic mean.[33] Still, shiner perch were the third most frequently landed sport fish for the San Francisco marine inland region (see Table 12.20-3).

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[29] Interagency Ecological Program for the San Francisco Estuary (IEP), IEP Newsletter, Volume 23, Number 2, Spring 2010.

[30] Ibid.

[31] Ibid.

[32] University of California Agricultural and Natural Resources California Fish Website, http://ucce.ucdavis.edu/datastore/datastoreview/showpage.cfm?usernumber=89&surveynumber=241, accessed March 30, 2011.

California Halibut (*Paralichthys californicus*). The California halibut is a member of the subtropical faunal group that became common in the estuary in the 1980s and 1990s, concurrent with the most recent warm-water regime. Since that time, the California halibut has supported a valuable recreational fishery for the San Francisco Bay area, reporting the fourth most landings from 2006 to 2010 (see Table 12.20-3). In the spring, adults migrate from deepwater wintering grounds to shallow coastal areas to spawn. Juveniles may remain within San Francisco Bay for up to two years before out-migrating to deeper waters.[34]

In 2009, the CDFG adult abundance index for California halibut declined for the third consecutive year to reach the lowest level since 2004.[35] Significant increases in the number of California halibut caught by sport fishermen in 2007 through 2009 were likely a direct result of the closure on sport fishing for salmon in the Bay and have placed considerable pressure on the fishery. This fishing pressure and associated harvest mortality has likely been a key contributor to the 2009 adult California halibut abundance index decline.

Pacific Sardine (*Sardinops sagax*). Pacific sardines are found in estuaries along the Pacific Coast but are more common in coastal and offshore areas. From 2006 to 2010, the Pacific sardine was reported as the sixth most frequently landed sport fish for San Francisco Bay recreational fishermen. Landings for the 5-year study period, as well as the proportion landed during the months of August and September, are skewed by the nearly 103,000 Pacific sardines reported caught in the period August to September 2009, representing over 50 percent of the approximately 190,000 Pacific sardines landed over the entire 5-year period (see Table 12.20-3).

Potential Effects of AC34 on a Commercial or Recreational Fishery Resource or Access to the Resource

As discussed above, the waters of the Central Bay are routinely inhabited by fish species that are important in either commercial or recreational sport fisheries of San Francisco Bay. These include Pacific herring (*Clupea pallasi*), jacksmelt (*Atherinopsis californiensis*), shiner perch, northern anchovy (*Engraulis mordax*), and California halibut (*Paralichthys californicus*). In addition, Bay shrimp (*Crangon franciscorum*) and Dungeness crab (*Cancer magister*) are common inhabitants.[36,37]

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[33] Interagency Ecological Program for the San Francisco Estuary (IEP), IEP Newsletter, Volume 23, Number 2, Spring 2010.

[34] Kucas, S.T., and T.J. Hassler, *Species profiles: life histories and environmental requirements of coastal fishes and invertebrates (Pacific Southwest)--California halibut*, United States Fish and Wildlife Service Biol. Rep. 82(11.44), United States Army Corps of Engineers, TR EL-82-4, 8 pp., 1986.

[35] Interagency Ecological Program for the San Francisco Estuary (IEP), IEP Newsletter, Volume 23, Number 2, Spring 2010.

[36] IEP. 2005-2009 (midwater trawl data). *Interagency Ecological Program for the San Francisco Estuary, San Francisco Bay Study; 2005-2009. Unpublished Mid-water Trawl Data.*

[37] Recreational Fisheries Information Network (RecFIN), Recreational Fisheries Landing Data, http://www.recfin.org/, accessed March 18, 2011.

The waters of the Central Bay, east of the Golden Gate, are regularly harvested for Bay shrimp and northern anchovies. Recreational sport fishing for perch, anchovy, herring, jacksmelt, bottom fish, shark, and salmon regularly occurs from Port piers and bulkheads, commercial sport boats, and along the waterfront of San Francisco, Marin, and Alameda Counties.

The potential effects on Bay waters and associated marine biota, especially fisheries and invertebrates, such as Bay shrimp and Dungeness crab, from AC34 Port improvements and 2012 and 2013 races would be the same as those described in the EIR for protected fish species assessed in Impacts BI-11 and BI-14 (starting on pages 5.14-81 and 5.14-103, respectively). Potential ecological effects on commercially or recreationally important fish and invertebrate species from project activities are not expected to result in substantial decreases in commercial or recreational sport fisheries resources. Implementation of Mitigation Measures M-BI-11c and M-BI-11a (Floating Dock Night Lighting and Pile Driving Noise Reduction) and M-BI-12 (Visiting Mariners Information) would also provide protection to all fish and invertebrates, including those harvested by either commercial or recreational sport fisheries, and can be expected to further reduce any remote effects on commercially and recreationally important fish and invertebrate species to less-than-significant levels.

Furthermore, access to marinas or the fisheries resource itself within the Central Bay is not expected to occur because access by fishing fleets in and out of Fisherman's Wharf at all times would be provided by a "transit lane" that would run north of the city and be patrolled by and initially established by the United States Coast Guard. Fishing would be able to occur on race days until around noon, which is compatible with the vast majority of both commercial and recreational fishing activity. Communication of the race schedule would be coordinated and integrated with the invasive species education and outreach program that would be distributed to the same Bay locations that are used by both recreational and commercial fishermen.

12.20.8 Invasive Species Impacts [BIM-7]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-CSLC2-03
A-CSLC2-09
A-CSLC2-11
A-CSLC2-12
A-CSLC2-13
A-DBW-10
A-Sausalito-11
O-ACEC-318
O-CNPS-06
O-FOTE-08
O-NRDC-18

- Marine Invasive Species Program staff are concerned about the potential for in-water construction vessels and in-water infrastructure to spread invasive species. All such vessels should be de-fouled prior to arrival in San Francisco Bay and cleaned again before leaving. [A-CSLC2-03]
- Section 5.14.6.3 should include the impact of non-indigenous species that may result from in-water construction. [A-CSLC2-09]

- Page 5.14-110 should note that state ballast water regulations now require that certain discharges meet performance standards for viable organisms allowed per volume. [A-CSLC2-11]
- Page 5.14-110 should note that vessels under the jurisdiction of the Marine Invasive Species Act must satisfy requirements to manage biofouling. Additional regulations may be in place as of January 2013. [A-CSLC2-12]
- Page 5.14-116 should clarify what is meant by "qualified marine biologist." [A-CSLC2-13]
- More information on preventing invasive species should be included in the EIR, and other relevant agencies should be consulted. [A-DBW-10]
- Mitigation Measure M-BI-16 should include a pre-race and post-race inspection of the Sausalito shoreline by a qualified marine biologist to ensure no net increase in invasive species. [A-Sausalito-11]
- The EIR should describe in detail how the visiting mariners information would address invasive species, and describe any other methods it plans to control invasive species. [O-ACEC-318]
- The EIR should include BMPs for dredging equipment and sterilizing wharf construction to help control the introduction of invasive species. [O-CNPS-06]
- The EIR should use methods other than distributing an information packet to control invasive species, such as ensuring that boats perform maintenance before entering the Bay. [O-FOTE-08]
- Visiting mariners information should include more key information and be distributed effectively. The minimum provisions for invasive species control provided by the EIR are too general for the public to assess their effectiveness. [O-NRDC-18]

Response BIM-7

Multiple comments were submitted concerning the introduction or spread of non-native invasive species (NIS), both from in-water construction activities and visiting boaters. Most of the commenters acknowledged that the problem of controlling NIS is an existing condition that is extremely difficult, if not potentially impossible, to manage. The impact analysis in the EIR acknowledges this existing condition and ongoing problem, and it also recognizes the potential for project activities to exacerbate this situation. To reduce the potentially significant impacts of the project (i.e., the potential incremental increase in the existing problem associated with the AC34 events), the EIR identifies two mitigation measures that would reduce the project's impacts to less-than-significant levels: Mitigation Measure M-BI-12, which recommends preparation of visiting mariners information that would educate the boating public and facilitate their ability to do their part to prevent the spread of NIS from their vessels; and Mitigation Measure M-BI-16, which responds to potential effects of in-water construction on the spread of already present invasive species. Many of the comments provide additional resources and suggest agency and organizations with which the project sponsors could coordinate to improve the visiting mariners information. These comments have been specifically addressed below in Response BIM-8a.

In response to similar comments concerning Mitigation Measure M-BI-16, the EIR text on page 5.14-111 (Mitigation Measure M-BI-16, Invasive Marine Species Control) is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> **Mitigation Measure M-BI-16: Invasive Marine Species Control**
>
> The project sponsor shall develop and implement an Invasive Species Control Plan prior to commencement of any in-water work including piers, wharfs, bulkheads, pile driving, and installation of temporary structures. The plan shall be prepared in consultation with the United States Coast Guard (USCG), RWQCB, and the Port of San Francisco ~~other relevant state agencies~~.

This revision does not change the analysis or conclusions presented in the EIR.

Comment O-CNPS-06 expresses concern that Mitigation Measure M-BI-16 should include best management practices for sterilizing wharf construction and/or dredging equipment relative to their potential for introducing invasive species. The dredging vessels routinely engaged in dredging activities within San Francisco Bay are already located within the Bay and, as indicated by one commenter, can be considered slow-moving "stochastic" vessels that have a higher likelihood of hull fouling and transfer of NIS. If traveling from another port, because of their size, these vessels must comply with CSLC regulations concerning ballast water exchanges, ballast water exchange reporting, and hull cleaning and reporting that are intended to control the introduction of invasive species from larger vessels. Vessels and barges that home port within San Francisco undergo routine hull cleaning in accordance with existing regulations. As yet, there are no legislative or regulatory requirements to post bond money to aid in the eradication of invasive species, although under CSLC marine invasive species regulations there are requirements for tankers and similar large vessels to pay into a state fund that is used to finance the control of invasive species and the restoration of declining native species. Some suggested changes to the mitigation measure were not added because they addressed visiting boaters, which are the focus of Mitigation Measure M-BI-12, whereas Mitigation Measure M-BI-16 focuses solely on in-water construction activities that would occur prior to the AC34 races in 2012 and 2013, which would require inspections and cleaning, if necessary, prior to performing any construction work related to AC34.

Another concern (Comment A-CSLC-03) that was expressed was about large construction vessels being brought into the Bay for planned in-water work. Most if not all of the pile driving would be done from onshore, with only a few piles being driven using small marine cranes or land-based cranes operating from flat work barges. This work is expected to be conducted by local Bay firms. Similarly, dredging is expected to employ local dredging operators. In the event a dredging vessel from outside the Bay were to be used, it would be subject to the same existing regulations controlling ballast water and hull cleaning and reporting requirements that all large vessels calling on San Francisco are currently subject to under state and federal regulations.

Comment A-CSLC2-13 inquires what "qualified marine biologist" means relative to Mitigation Measure M-BI-16. Specifically, the plan would further define the requirements for this individual, but at a minimum, it is someone who has been academically and professionally trained to recognize invasive species, especially algae that can spread by breaking off and floating to a new location. Currently NMFS has specific requirements for individuals involved in surveying for and removing *Caluerpa taxifolia*, but no similar requirements exist for other invasive species.

Comment A-Sausalito-11 suggests that a qualified marine biologist conduct an invasive species assessment of the Sausalito shoreline pre- and post-AC34 races to ensure no net increase in invasive species and that the project sponsors be responsible for the removal of any new invasive species identified. Unlike impacts on some marine resources, such as eelgrass, and the directly identifiable and measurable impacts from nearby dredging that might occur as a result of dredging nearby a bed, the source of a new invasive species is impossible to determine. Furthermore, invasive species can and do arrive into the Bay naturally or transported by other marine organisms. This does not lessen the potential for visiting boaters to be the vector of a new introduced species to the Bay, but just demonstrates the magnitude and complexity of the problem. Species are introduced in San Francisco Bay on a regular basis by many means, as described in Section 5.14.4.6 of the EIR. At present, invasive species are potentially being introduced into the Bay marine ecosystem by visiting boaters and small vessels that are not required to comply with existing federal or state invasive species regulations and may not be required to do so in the future. That includes the thousands of pleasure boats that visit San Francisco Bay yearly and for existing special events such as Fleet Week and when the Tall Ships or other special maritime visitors come to the area. The project sponsors recognize the potential for using the AC34 races as an opportunity to educate the boating community about the problems of invasive species and the role they and their boats play in species introduction and spread. Mitigation Measures M-BI-12 and M-BI-16 are expected to be capable of reducing the impact associated with the introduction and spread of invasive species from vessels coming to San Francisco Bay for the AC34 activities to a less-than-significant level over the existing CEQA baseline. The visiting mariners information further has the potential to educate the greater boating community and provide a key resource for government agencies and key stakeholders in possibly reducing or controlling the introduction and spread of invasive species beyond just those visitors coming to San Francisco Bay for the AC34 races.

12.20.9 Mitigation Measures [BIM-8]

This topic is further subdivided into the following sub-topics:

- BIM-8a, Visiting Mariners Information
- BIM-8b, Other Mitigation Measures

BIM-8a, Visiting Mariners Information—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-CSLC2-10
A-DBW-04
O-ACEC-318
O-ACEC-319
O-MAS-15
O-NRDC-19
O-TIRN2-30

- Page 5.4-12 should include information on measures to clean wetted or submerged surfaces of vessels for preventing the spread of non-indigenous species. [A-CSLC-10]
- Visiting mariners information should consult additional stakeholders such as marinas and other recreational boating industry representatives. [A-DBW-04]
- The EIR should describe in detail how the visiting mariners information would address invasive species and how it would be enforced. [O-ACEC-318]
- Visiting mariners information should be more detailed, with additional information about speed restrictions, marine mammal locations, and references to existing tools. The EIR should include a plan to widely and effectively distribute this information. [O-ACEC-319]
- The visitor information packet must be provided to boaters in advance. The EIR should provide its distribution plans and consider requiring boats to undergo maintenance prior to entering the Bay. [O-MAS-15]
- Mitigation measures described in visiting mariners information must be monitored and enforced. The plan should also be more detailed, with additional information about speed restrictions, marine mammal locations, and references to existing tools. The EIR should include a plan to widely and effectively distribute this information and a clear protocol for agency coordination to enforce the provisions. The Event Authority should work closely with the United States Coast Guard and other authorities to ensure that all vessels entering the Bay are advised of these rules and guidelines. [O-NRDC-19]
- The EIR must explain how visiting mariners information requirements would be enforced and monitored for compliance. The Water and Air Traffic Plan currently under development must be completed and included in the EIR. [O-TIRN2-30]

Response BIM-8a

Multiple comments were received concerning Mitigation Measure M-BI-12 (Visiting Mariners Information). Many of these comments make recommendations concerning the inclusion or use of existing information on pump-out locations, waste disposal, invasive species, and other specific components of the plan required by the mitigation measure. Comments concerning water quality issues are addressed in Section 12.22, Hydrology and Water Quality, of this document.

In response to numerous comments concerning additions to the marine resources components of the mitigation measure, EIR text on pages 5.14-100 to 5.14-103 is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> **Mitigation Measure M-BI-12: Visiting Mariners Information**
>
> The AC34 project sponsor shall prepare as part of their Water and Air Traffic Plan information for visiting mariners as well as procedures for the dissemination of this information to visiting boaters prior to or upon arrival to San Francisco Bay for the AC34 2012 and 2013 races. This information to be made available to visiting boaters shall include, but not be limited to information educating boat owner/operators about sensitive habitats and species in the Bay and actions they are required to implement to avoid impacts to marine resources. The plan shall also include information on how to employ environmentally sound

boating practices and where to find environmental services to ensure clean boating habits. The plan shall identify marinas that are available for use by visiting mariners (e.g., marinas in San Francisco and Marin County) and provide information about the locations of environmental services that boaters in these marinas are most likely to need. Educational materials shall clearly address, in multiple languages, common sources of pollution from boats and marinas and ~~outline~~ relevant regulations and clean boating policies, and shall provide a succinct description of best management practices to prevent pollution from common sources including oil and fuel, sanitary waste, detergents, hazardous waste, and marine debris (including the use and proper disposal of oil adsorbents in power boat bilges).

The visiting mariners information in the Water and Air Traffic Plan shall include details on how this information will be disseminated to visiting boaters, including but not limited to brochures, ~~or~~ pamphlets, or educational signs; AC34 websites; boating, cruising, and newspaper periodicals; social media; ~~and~~ area yacht clubs and marinas; and all AC34 mooring locations. Educational information shall be made available at waterway entry points such as boat launch ramps, marinas, yacht clubs, and ports, in partnership with appropriate agencies and where cooperation from boater facilities can be achieved. The plan shall be prepared soliciting input from and in cooperation with the National Marine Fisheries Service (NMFS), United States Coast Guard (USCG), California State Lands Commission, California Department of Fish and Game (CDFG), ~~National Park Service (NPS),~~ California Department of Parks and Recreation (CDPR), Bay Conservation and Development Commission (BCDC), State Water Resources Control Board, California Department of Boating and Waterways (DBW), the Port of San Francisco, San Francisco Estuary Partnership, ~~and~~ local organizations active in protecting Bay marine resources, and relevant industry stakeholders, including but not limited to the California Harbormasters and Port Captains Association, Marine Recreation Association, Clean Marinas California Program, Recreational Boaters of California, Pacific Inter-Club Yacht Association, boat yard representatives, and local San Francisco Bay Area yacht clubs.

Visiting Mariners Information contained within the Water and Air Traffic Plan shall include, but not be limited to the following items:

- Information on the location of eelgrass beds in the Central Bay, especially Richardson Bay and adjacent to Angel, Alcatraz, and Treasure Islands and the importance of protecting and avoiding these sensitive habitats (e.g., by not anchoring in or transiting through them)
- Marinas and safe anchoring and mooring locations and methods ~~in the Bay where~~ that boaters may use to dock or anchor their vessels in San Francisco Bay and in nearby bays and other waterways
- Information on where boaters may safely dock dinghies and vessel tenders when coming on shore
- Information on proper and legal waste handling in the Bay and facilities for onshore disposal during the AC34 activities
- Information on invasive species and their impact on Bay marine ecosystems and boaters as well as ~~and preventative steps~~ best management practices developed by

the AC34 Invasive Species Task Force that boaters should implement ~~take~~ to prevent the introduction or spread of invasive species into and out of the San Francisco Bay. These provisions shall include but not be limited to pending and proposed regulations by state and federal agencies responsible for the control of invasive organisms and will incorporate established effective strategies such as "clean before you go."

- Information on the Vessel Traffic Service for San Francisco Bay and changes that will be in place during AC34 races
- Federal and state regulations prohibiting the harassment of marine mammals
- Information on any buffer zones established around Central Bay islands and other Bay locations to protect sensitive bird nesting sites
- ~~Information about onsite and nearby environmental services that support clean boating practices~~ Materials produced by DBW that include information about onsite and nearby environmental services that support clean boating practices (such as the locations of sewage pump outs, oil change facilities, used oil recycling centers, bilge pump outs, absorbent pad distribution and spent pad collection, and boat-to-boat environmental services).

  These materials should include but not be limited to:

  - Environmental Boating Laws Brochure; www.coastal.ca.gov/ccbn/EnvironmentalLawsBrochure.pdf
  - ABCs of California Boating Law; www.dbw.ca.gov/Pubs/abc/
  - Clean Boating Habits; www.dbw.ca.gov/Pubs/CleanBoatingHabits/Default.aspx
  - San Francisco Bay Area Clean Boating Map; http://www.coastal.ca.gov/ccbn/SF_Bay_Celan Boating_Map.pdf
  - San Francisco Bay Pumpout Guide and Map for Baoters; www.sfestuary.org/userfilesBay%20Guide.pdf and www.sfestuary.org/userfilesBay%2-Map.pdf

- A Boaters Guide to Keeping Pollutants Out of the Water; www.coastal.ca.gov/ccbn/bindercard.pdf
- Information regarding the importance of keeping plastic out of Bay waters
- Signage regarding locations of waste collection containers posted at and adjacent to temporary docks, berthing facilities, and areas used by moored spectator vessels (10 vessels or more) developed for the AC34 events

Due to the extent of berthing, mooring, and marina facilities within the Bay shoreline, the project sponsor shall coordinate with other jurisdictions with respect to waste management at secondary viewing areas, such as (but not limited to) Treasure Island, Angel Island, Sausalito, Belvedere, and Tiburon. Coordination and outreach efforts with those jurisdictions would further minimize the potential for discards and pollution to enter Bay waters from private vessels. Additionally, the project sponsor ~~c~~would develop, as part of official AC34 event literature, maps of the marinas that show the locations of fuel docks, sewage pumpouts, portable toilets, dump stations, used oil collection services, bilge

> pumpouts, oil absorbent pad distribution and collection services, oil change services, solid waste recycling services, and other environmental services for boaters. The sources of information for literature and maps developed under this mitigation measure shall include, as appropriate, information available through resources such as the San Francisco Estuary Partnership and California's Boating Clean and Green Campaign (including the San Francisco Bay Area Clean Boating Map) subject to agreement with the resources agencies and organizations providing input to the development of the outreach materials.

These revisions do not change the analysis or conclusions presented in the EIR.

Concerns are expressed about the apparent vagueness of the requirement to include measures to be taken to prevent the introduction and spread of invasive species within the mitigation measure. As other commenters confirm, at present there are multiple state and federal agencies with overlapping jurisdiction and responsibilities concerning the control of invasive species into U.S. and California waters. As several commenters indicate, several state and federal agencies are currently in the process of developing regulations and requirements for boaters to control the introduction and spread of invasive species. It is precisely because regulatory efforts to control non-native invasive species (NIS) from hull fouling and a broader range of vector vessels are currently underway and about to be finalized that specific actions are not required under Mitigation Measure MI-B-12. It is critical at this early stage of educating the public and engaging in meaningful and effective steps to combat NIS that the information being provided to visiting boaters can incorporate the most current and updated information and regulatory requirements being produced by these ongoing efforts. The goal-oriented mitigation requirement to implement actions that prevent the introduction and spread of invasive species is stated as it is specifically to avoid requiring specific actions that may contradict pending regulations, confuse the public, or at worst, fail to effectively address the issue. Furthermore, requiring the project sponsors to work cooperatively with those same state and federal agencies with regulatory and legislative jurisdiction for the control of invasive species and that are preparing new enforceable regulations to address the issue would result in the most current, accurate, and effective actions being included in the information to potential visiting boaters.

At present, the Port of San Francisco, with the help of the America's Cup Event Authority and RWQCB staff, have established the AC34 Invasive Species Task Force (ISTF) to address the issue of invasive species as it relates to the AC34 project and visiting boaters. In addition to the project sponsors, the ISTF is composed of expert members from the RWQCB, the San Francisco Estuary Project, the California Coastal Commission, the State Lands Commission, CDFG, the United States Coast Guard, the California Department of Boating and Waterways, and the Smithsonian Institute. The ISTF is currently in the process of drafting BMP guidelines that would be distributed to boaters who may attend the AC 34 race events. The ISTF is working together to create a detailed dissemination plan that will describe how each category of vessel associated with AC34, including spectator vessels from outside and around San Francisco Bay, would be contacted, with a particular focus on those categories of boats with the highest potential to introduce invasive species. Once assembled, this information will have the added benefit of providing important education and action information to all boaters, not only in San Francisco, but statewide and possibly beyond.

The larger vessels anticipated to come to San Francisco for the AC34 events and activities would fall under existing CSLC and United States Environmental Protection Agency marine invasive species regulations as well as those currently pending. All additional actions suggested by commenters to address the potential introduction or spread of invasive species have been forwarded to the project sponsors and agencies for consideration when preparing the visiting mariners information component of the Water and Air Traffic Plan.

One commenter is concerned that the plan and its information would not be available in time for distribution to visiting boaters. The Water and Air Traffic Plan is currently under draft and is planned to be available for distribution in early 2012, which should make it available in time for the limited number of visiting boaters expected to come to San Francisco Bay for the 2012 races and in plenty of time for the 2013 races. Additional revisions to the plan are also expected to occur as state and federal regulations continue to evolve over the next couple of years.

Comment O-NRDC-19 also suggests boater speed restrictions. The United States Coast Guard has sole jurisdiction over vessel movements on the waters of the United States.

BIM-8b, Other Mitigation Measures—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-DBW-13	O-FOTE-01

- The EIR should include legal requirements developed by other agencies to prevent the spread of invasive species. The EIR should incorporate specific mitigations for boats as a vector for invasive species in addition to its current focus on in-water construction activities as potential vectors. [A-DBW-13]
- The EIR should include an enforcement plan, and relevant agencies and interested stakeholders should be more interested in the planning process. [O-FOTE-01]

Response BIM-8b

Several comments were received concerning the adequacy of the proposed mitigations to reduce potential effects on marine resources within the Bay and the need to include enforcement actions and involve interested stakeholders in the planning effort. These comments are acknowledged and in several instances reflect the commenter's opinions. Please see Section 12.6, Impact Overview, for discussion of overall enforcement of mitigation measures.

Concerns about protecting the valuable and sensitive marine resources within the Bay are shared by the project sponsors and the state, federal, and local agencies responsible for the protection of those resources. The approaches proposed by the project sponsor, use of best management practices, and proposed mitigations in combination seek to ensure that the potential effects of the project on the marine environment are as minimal as possible, and that potentially significant and significant impacts can be reduced to less-than-significant levels with implementation of feasible mitigation measures in accordance with the CEQA Guidelines.

One commenter expresses concern that more detail was provided in Mitigation Measure M-BI-16 dealing with the spread of invasive species from in-water construction activities than was provided in Mitigation Measure M-BI-12 (Visiting Mariners Information). Identifying and implementing actions to control the spread of invasive species attached to temporary floating docks and other structures is considerably more straightforward than identifying and implementing actions to be carried out by individual boaters and enforced by multiple state and federal agencies with overlapping jurisdiction and responsibilities. As several commenters indicate, several state and federal agencies are currently in the process of developing regulations and requirements for boaters to control the introduction of invasive species. It is partly because these efforts are underway that specific actions were not mentioned in Mitigation Measure MI-B-12, so that the information being provided to visiting boaters can incorporate these ongoing efforts, both in educating the boating public and in supporting and reinforcing the enforcement actions that will be proposed by these agencies. As discussed in Responses BIM-7 and BIM-8a above, there currently exists substantial information for boaters about controlling the spread of invasive species worldwide. Condensing this information down into readable and manageable packets such that visiting boaters understand the need for the measures and then implement the actions suggested is one objective of Mitigation Measure MI-B-12. As noted in Response BIM-7 above, the introduction of invasive species is occurring currently with few, if any, restrictions or requirements on visiting boats to San Francisco Bay. The requirements to include education of and actions to be taken by visiting boaters concerning invasive species are significantly more than what is currently being implemented for similar Bay activities and, as such, are intended to ensure that impacts associated with visiting boaters coming to San Francisco Bay for the AC34 events would be reduced to less-than-significant levels when compared to the existing condition.

12.20.10 Cruise Terminal Scope of Analysis [BIM-9]

This response addresses all or part of the following comments:

O-TIRN2-29	O-TIRN2-31

- The EIR should include an analysis of impacts on marine resources due to the Cruise Terminal project, consistent with the approach in other EIR sections. [O-TIRN2-29, O-TIRN2-31]

Response BIM-9

The commenter requests an analysis of impacts on marine resources from the proposed Cruise Terminal project. As stated in on page 5.14-112 of the EIR, "the redevelopment of Piers 27-29 for the James R. Herman Terminal and Northeast Plaza involves only onshore Port improvements and no in-water work. The dredging of the Pier 29 bay will be conducted under an existing maintenance dredging authorization from ACOE and the CEQA analysis associated with that authorization." Therefore, there would be less-than-significant impacts on marine biological resources.

Larger cruise ships would call at the Port of San Francisco regardless of the proposed project. This is an ongoing trend that would continue over time even without the project. Therefore, the EIR does not consider impacts on marine biological resources related to larger cruise ship vessels.

Comparisons to other EIR sections are not applicable because the geographic and temporal scope of impacts is different depending on impact category.

12.21 Geology and Soils

12.21.1 Overview of Comments on Geology and Soils

The comments and corresponding responses in this section cover topics in Chapter 5, Section 5.15, of the EIR. These include topics related to:

- GE-1, Deferred Mitigation
- GE-2, Soil Erosion at Viewing Locations

12.21.2 Deferred Mitigation [GE-1]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-WW-50	O-WW-51

- The EIR fails to investigate the geotechnical condition of existing piers. This information should have been included either in the project description or in the setting in the geology and soils section. Moreover, the mitigation proposed relies on enactment of future surveys and investigations, and there is no indication that compliance with these future plans or survey findings would reduce impacts to less-than-significant levels. The mitigation measures do not include specific, enforceable performance standards. [O-WW-50, O-WW-51]

Response GE-1

In accordance with CEQA Guidelines Section 15370, a mitigation measure should avoid an impact altogether or minimize the impact by limiting the degree or magnitude of an action or its implementation. Furthermore, a mitigation condition that depends on the future formulation of a mitigation plan may be valid, provided that the lead agency recognizes the significance of the potential environmental effect, commits to mitigating the impact, and identifies specific performance criteria for the future mitigation." It should also be noted a condition requiring compliance with environmental regulations is a common and reasonable mitigation measure.

Impacts GE-2 and GE-3 on EIR pages 5.15-15 to 5.15-21 conservatively assume that impacts related to groundshaking and liquefaction and other seismically induced ground failures would be significant for Piers 30-32 because these seismic hazards exist along the San Francisco waterfront. Mitigation Measure M-GE-2 requires preparation of a geotechnical investigation under the direction of a geotechnical engineer prior to permitting any new construction or reuse that would increase the load of the structure. The investigation must evaluate subsurface conditions and existing structural conditions at the site, and also evaluate the potential for geological and seismic hazards including settlement, groundshaking, ground rupture, liquefaction, subsidence, slope stability, and lateral spreading. Mitigation Measure M-GE-2 further requires that the geotechnical report for the project include recommendations regarding the pile and foundation requirements, seawall stability, seismic design, and mitigation of geologic hazards, and that these recommendations be included in the project design. Because the seismic design of the improvements at Piers 30-32 would be based on the results of the geotechnical investigation, would meet the performance criteria of existing building regulations, and would further be subject to review by the Port of San Francisco to determine compliance with the Port of San Francisco Building Code prior to permitting construction of improvements. Therefore, this mitigation measure meets the CEQA requirements for an adequate mitigation measure.

The following revisions are made to Mitigation Measure M-GE-2, Site-Specific Geotechnical Investigation, on EIR page 5.15-19 to clarify review by the Port of San Francisco Chief Harbor Engineer for compliance with the Port of San Francisco Building Code (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> **Mitigation Measure M-GE-2, Site-Specific Geotechnical Investigation**
>
> The project sponsor shall conduct a site-specific geotechnical investigation for piers requiring upgrading under the direction of a geotechnical engineer prior to permitting any new construction or reuse that would increase the load of the structure. The investigation shall be performed to evaluate subsurface conditions and existing structural conditions at the site, and shall evaluate the potential for geological and seismic hazards including settlement, ground shaking, ground rupture, liquefaction, subsidence, slope stability, and lateral spreading. Recommendations shall be made regarding the pile and foundation requirements, seawall stability, seismic design, and mitigation of geologic hazards, and these recommendations shall be included in the project design, subject to the review and approval by the Port of San Francisco Chief Harbor Engineer to determine compliance with the Port of San Francisco Building Code.

These revisions do not change the analysis or conclusions presented in the EIR.

Note that the project sponsor has completed the geotechnical investigation at Piers 30-32 required by Mitigation Measure M-GE-2, and the results of the investigation are summarized in Chapter 11. As stated there, the geotechnical report concluded that widespread liquefaction is not an issue at the Piers 30-32 site. The proposed improvements at Piers 30-32 would not involve any dredging or fill that would affect the stability of the seawall, and the geotechnical report concluded that seismically-induced lateral displacement would be on the order of 2 to 3 inches under the design earthquake for the project. These conclusions would inform design requirements for the piers.

Impact GE-6 on EIR pages 5.15-22 to 5.15-23 concludes that the impact related to the use of structurally unsound waterfront piers by event spectators is potentially significant and recommends the implementation of Mitigation Measure M-GE-6 to reduce this impact to a less-than-significant level. This mitigation measure requires the project sponsor to conduct a survey of existing piers and wharfs, and to post signs at and restrict access to those that are identified as structurally unsound.

Further, this measure states that signage shall be coordinated with the appropriate land authorities, which would be responsible for determining the structural integrity of piers and wharfs, consistent with their current practices, to determine the appropriate placement of signs.

12.21.3 Soil Erosion at Viewing Locations [GE-2]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

A-NPS2-187

- As with other viewing locations, adequate fencing, signs and monitors are needed to address impacts related to soil erosion at Fort Mason [A-NPS2-187]

Response GE-2

Impacts related to soil erosion at secondary viewing locations are discussed in Impact GE-3 on EIR pages 5.15-21 and 5.15-22. As discussed, these impacts would be less than significant with implementation of the Parks Event Operations Plan by the project sponsors, requiring coordination with the National Park Service and California State Parks on crowd control, fencing, and signage to reduce damage to vegetation and erosion at the secondary viewing areas.

In response to this comment, the second paragraph on EIR page 5.15-22 is revised as follows to address Fort Mason (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> The AC34 events are expected to attract large crowds that may seek vantage points other than the spectator venues that are being provided by the project sponsor, known as secondary viewing areas as described in Section 5.1. In particular, these potential secondary viewing locations include other National Park Service lands (e.g., within the Presidio or Marin Headlands), the Sausalito waterfront, Angel Island (managed by the California State Parks), and Treasure Island/ Yerba Buena Island. Viewers could also seek vantage points at Lower Fort Mason. As discussed in Section 5.11, Recreation, these areas may experience an increase in pedestrian traffic. This increased use could cause erosion and disturbance to existing vegetation if the increase in visitors is sufficient to result in overuse and damage to trails and vegetation or would result in the creation of casual trails between public streets and parking areas. However, these secondary viewing areas are generally open space/park areas accessible to the public and designed for extensive public uses; with the possible exception of very high visitation levels anticipated on the final peak weekend race days (see Chapter 3, Section 3.4.3, AC34 Visitation Estimates), the level of visitors at the secondary viewing areas for most of the AC34 events would be expected to be within the range of existing use levels. Nevertheless, as described in Chapter 3, Project Description, the project sponsors would implement the Parks Event Operations Plan, requiring coordination with ~~the Golden Gate National Recreational Area, and~~ California State Parks and the National Park Service on crowd control, fencing, and signage to reduce damage to vegetation and erosion at the secondary viewing areas. Furthermore, the City and Event Authority as the AC34 project sponsors are actively coordinating with neighboring jurisdictions in Marin County, including Sausalito and Belvedere, to address planning and preparation for the AC34 events to avoid or minimize effects on resources. (See also

> Section 5.11, Recreation, for discussion of potential impacts on recreational resources, and Section 5.14, Biological Resources, for discussion of potential impacts on vegetation resources.) In addition, these events are temporary and would not induce erosion over the long term.

These revisions do not change the analysis or conclusions presented in the EIR.

12.22 Hydrology and Water Quality

12.22.1 Overview of Comments on Hydrology and Water Quality

The comments and corresponding responses in this section cover topics in Chapter 5, Section 5.16, of the EIR. These include topics related to:

- HY-1, Changes to the Setting
- HY-2, Updates to the Regulatory Framework
- HY-3, Construction-Related Water Quality
- HY-4, Dredging and Dredged Spoils Disposition
- HY-5, In-Water Construction Activities
- HY-6, Enclosure of Water Basins
- HY-7, Development of Outreach Materials
- HY-8, Increased Use of Boating Facilities
- HY-9, Boating Discharges, Spills, and Littering
  - HY-9a, Enforcement of Boating Regulations
  - HY-9b, Increased Hazardous Waste Generation by Vessels
  - HY-9c, Increased Sewage from Vessels
  - HY-9d, Invasive Species
  - HY-9e, Littering
  - HY-9f, Water Quality Effects on Public Health
- HY-10, Post-Construction Stormwater Management
  - HY-10a, Post-Construction BMPs
  - HY-10b, Coverage under Industrial Stormwater Permit
- HY-11, Climate Change-Induced Sea Level Rise and Future Flooding
- HY-12, Use of Regulations and Plans in Impact Analyses
- HY-13, Under-Pier Infrastructure
- HY-14, Bay Fill
- HY-15, Cumulative Impact Analysis

12.22.2 Changes to the Setting [HY-1]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-134 A-Presidio-25

- On page 5.16-13, delete the sentence starting "Much of the system..." and change the word "operates" to "has." [A-NPS2-134]

- The Figure 5.16-2 legend should replace "NPS" with "GGNRA" for accuracy. [A-Presidio-25]

Response HY-1

In response to these comments, the legend on Figure 5.16-2, Areas in San Francisco Served by Separate Sanitary/Storm Sewer Systems (EIR page 5.16-5), is revised to replace "NPS" with "GGNRA" and the EIR text on page 5.6-13, end of the first incomplete paragraph, is also revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> ~~Much of the system is damaged or of insufficient capacity to accommodate design flows.~~ Unlike most of the City and County of San Francisco, the Presidio ~~operates~~ has separate storm water and sanitary sewer systems.[21]

These revisions do not change the analysis or conclusions presented in the EIR.

12.22.3 Updates to the Regulatory Framework [HY-2]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-135
A-CSLC2-02
A-CSLC2-14
O-ACEC-323
O-TIRN2-10
O-TIRN2-32

- Section 5.16.2.1 should include NPS Management Policies 2006, Section 4.6.3, Water Quality. [A-NPS2-135]
- Pages 5.14-78 and 5.16-46 refer to the outdated 1999 Ballast Water Management for the Control of Nonindigenous Species Act, which has been superseded by the 2003 Marine Invasive Species Act. The EIR must include the requirements described in this act. [A-CSLC2-02]
- Information on page 5.16-67 should be updated to reflect the current requirements as stated in the Marine Invasive Species Act. [A-CSLC2-14]
- The EIR should describe the Cruise Lines International Association BMPs as a voluntary guideline. The EIR should describe recent updates and amendments to MARPOL Annexes IV and V and U.S. EPA regulations on cruise ship discharges. [O-ACEC-323]
- The EIR fails to provide the regulatory framework for marine vessels. [O-TIRN2-10]
- The EIR should describe the Cruise Lines International Association BMPs as a voluntary guideline. The EIR should describe recent updates and amendments to MARPOL Annexes IV and V and U.S. EPA regulations on cruise ship discharges. [O-TIRN2-32]

Response HY-2

In response to Comment A-NPS2-135, the following text is added immediately above the section titled "Rivers and Harbors Act" on EIR page 5.16-30 to address the NPS Management Policies 2006 (deleted text is shown as ~~strikethrough~~ and new text is underlined):

National Park Service Management Policies 2006

Policies for management of the National Park Service (NPS) are contained within the National Parks Service Management Policies 2006. The policies are intended to comply with current laws, regulations, and executive orders and prevent impairment of park resources and values. Policy 4.6.3, Water Quality of the management policies addresses overall pollution of surface waters and groundwaters, and states the following:

> The pollution of surface waters and groundwaters by both point and nonpoint sources can impair the natural functioning of aquatic and terrestrial ecosystems and diminish the utility of park waters for visitor use and enjoyment. The NPS will determine the quality of park surface and groundwater resources and avoid, whenever possible, the pollution of park waters by human activities occurring within and outside the parks. The NPS will:
>
> - work with appropriate governmental bodies to obtain the highest possible standards available under the Clean Water Act for the protection for park waters;
> - take all necessary actions to maintain or restore the quality of surface waters and groundwaters within the parks consistent with the Clean Water Act and all other applicable federal, state, and local laws and regulations; and
> - enter into agreements with other agencies and governing bodies, as appropriate, to secure their cooperation in maintaining or restoring the quality of park water resources.

In response to Comments O-ACEC-323, O-TIRN2-10, and O-TIRN2-32, the following text is deleted from the section titled "Federal Boating Regulations" on EIR page 5.16-33 to address the fact that the Cruise Industry Waste Management Procedures are voluntary (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> The U.S. Coast Guard Marine Safety Office or local marine patrols also assist enforcing these laws as it is infeasible for the U.S. Coast Guard to catch every violation.[71] ~~The Cruise Lines International Association (CLIA), which most cruise lines belong to, also adopted a set of "Cruise Industry Waste Management Practices and Procedures" in 2001 incorporating legal and voluntary practices for waste minimization, waste reuse and recycling, and waste stream management on the part of the cruise ship industry.[72] The standards were revised in 2006 and are designed to meet or exceed legal requirements and acceptance of these standards is mandatory for membership in the CLIA. To address waste handling, the CLIA member lines have agreed that hazardous wastes and waste streams onboard cruise vessels will be identified and segregated for individual handling and management in accordance with applicable laws and regulations. They have further agreed that hazards wastes will not be discharged to the environment, nor mingled or mixed with other waste streams. The CLIA members have also agreed to meet or exceed the international requirements for removing oil from bilge and wastewater prior to discharge, eliminate (to the maximum extent possible) plastics and other garbage into the environment, and implement water management strategies to minimize the use of fresh water.~~

The following text is added to the end of EIR page 5.16-56 to indicate that compliance with the Cruise Industry Waste Management Practices and Procedures is voluntary, and the practices and procedures are not regulatory requirements (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> ### 5.16.2.4 Cruise Industry Waste Management Practices and Procedures
>
> The Cruise Lines International Association (CLIA), which most cruise lines belong to, also adopted a set of "Cruise Industry Waste Management Practices and Procedures" in 2001 incorporating legal and voluntary practices for waste minimization, waste reuse and recycling, and waste stream management on the part of the cruise ship industry. The standards were revised in 2006 and are designed to meet or exceed legal requirements, and acceptance of these standards is mandatory for membership in the CLIA. To address waste handling, the CLIA member lines have agreed that hazardous wastes and waste streams onboard cruise vessels will be identified and segregated for individual handling and management in accordance with applicable laws and regulations. They have further agreed that hazards wastes will not be discharged to the environment, nor mingled or mixed with other waste streams. The CLIA members have also agreed to meet or exceed the international requirements for removing oil from bilge and wastewater prior to discharge, eliminate (to the maximum extent possible) plastics and other garbage into the environment, and implement water management strategies to minimize the use of fresh water.

In response to Comments O-ACEC-323, O-TIRN2-10, and O-TIRN2-32, the end of the first paragraph on EIR page 5.16-34 is revised as follows to address updates of MARPOL Annexes IV and V (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> … vessels, recreational and commercial. Amendments to MARPOL adopted in July 2011 become effective on January 1, 2013. Amendments to Annex IV include the possibility of establishing "Special Areas" for the prevention of pollution by sewage from passenger ships. Amendments to Annex V include updating of definitions; the inclusion of a new requirement specifying that discharge of all garbage into the sea is prohibited, except as expressly provided otherwise; expansion of the requirements for placards and garbage management plans to fixed and floating platforms engaged in exploration and exploitation of the seabed; and the addition of discharge requirements covering animal carcasses. The Safety of Life at Sea Convention….

The text on EIR page 5.16-34 is correct in referencing the 2008 Cruise Ship Discharge Assessment Report. In response to Comments O-TIRN2-10 and O-TIRN2-32, the following text is added to the second paragraph on EIR page 5.16-34 to add a cross-reference to National Pollutant Discharge Elimination System (NDPES) permit requirements for cruise ship discharges (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> …waste stream from cruise ships. NPDES permit requirements pertaining to cruise ship discharges are described below under the section titled Clean Water Act – Boating.

The following text revisions are made to the third full paragraph on EIR page 5.16-35 to address NDPES permit requirements for cruise ship discharges (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> ***Sections 301 and 402.*** Sections 301 and 402 of the CWA establish permit requirements for discharge of pollutants from point sources such as vessels~~, although the U.S. EPA regulations specify that NPDES permits are not required for any discharge of sewage from vessels; effluent from properly functioning marine engines, laundry, shower, and galley sink wastes; or any other discharge incidental to the normal operation of a vessel~~. In 2008, the U.S. EPA adopted the Vessel General Permit that applies to discharges incidental to the normal operation of all non-recreational, non-military vessels of 79 feet or greater that discharge in the waters of the United States. In addition, the ballast water discharge provisions also apply to any non-recreational vessel of less than 79 feet or commercial fishing vessel of any size discharging ballast water. Vessels subject to this permit must submit a Notice of Intent, comply with effluent limitations for discharges, implement corrective actions to fix any permit violations, conduct routine visual inspections and annual inspections, and periodically report to the U.S. EPA and/or U.S. Coast Guard. Covered discharges include ballast water discharges, deck runoff and washdown, graywater discharges, and bilgewater discharges. Failure to comply with this permit can result in severe civil and criminal penalties.

The following text is added to the second paragraph of EIR page 5.16-36 to reflect No Discharge Zones established and proposed by the U.S. EPA (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> …into any designated No Discharge Zone. In accordance with ~~T~~this section of the CWA, ~~is~~ implemented jointly by U.S. Coast Guard and the U.S. EPA, Richardson Bay was designated as a No Discharge Zone in 1987.[79a] The U.S. EPA also proposed a rule in August 2010 to establish all of California marine waters as a No Discharge Zone. This rule would prohibit the discharge of both treated and untreated sewage into California's marine waters from cruise ships and certain large oceangoing ships. It is expected that this rule would eliminate the discharge of approximately 20.4 million gallons of treated vessel sewage currently discharged to California's marine waters each year.[79b] The bulk of the vessel sewage not covered by this proposed rule is generated by recreational vessels that are required to continue using available pumpout stations throughout the state. The U.S. EPA tentatively plans to publish the proposed rule in the Federal Register by November 2011.

The Marine Invasive Species Act of 2003 and its requirements are discussed in Section 5.16.2, Regulatory Framework, on EIR page 5.16-46. In response to Comments A-CSLC2-02 and A-CSLC2-14, the last paragraph on this page is revised as follows to update reference to the Marine

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[79a] U.S. EPA, No Discharge Zones by State, http://water.epa.gov/polwaste/vwd/vsdnozone.cfm, accessed on September 9, 2011.

[79b] U.S. EPA, "California Non Discharge Zone Proposed Rule Fact Sheet, August 25, 2010 Press Event," http://www.epa.gov/region9/mediacenter/nodischarge/CAnodischarge-factsheet.pdf, accessed on September 9, 2011.

Invasive Species Act. Text is also added immediately after this paragraph to provide additional information regarding the performance standards specified by the Marine Invasive Species Act (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> All shipping operations that involve major marine vessels are subject to ~~T~~the Marine Invasive Species Act of 2003 (Public Resources Code Sections 71200 through 71271) which revised, ~~and~~ expanded, extended, and renamed the California Ballast Water Management for Control of Non-indigenous Species Act of 1999 (Assembly Bill 703). ~~Effective January 1, 2000, the Ballast Water Management for Control of Non-indigenous Species Act established a statewide program to prevent or reduce the introduction and spread of non-indigenous aquatic species into the state waters. The program is under the direction of~~ The Marine Invasive Species Act is administered by the California State Lands Commission through its Marine Invasive Species Program and applies to all domestic and foreign vessels over 300 gross registered tons~~ in consultation with other state and federal agencies~~. The act, as amended in subsequent years, has primarily focused on regulating the handling of ballast water from marine vessels arriving at California ports in order to prevent or minimize the introduction of non-native invasive species (NIS). Other requirements of the act are concerned with hull husbandry and the reduction of fouling and the spread of NIS from fouling organisms as well as data gathering to better understand NIS threats to state waters and marine communities.
>
> The ~~program~~ act requires that all vessels carrying ballast water must either conduct a mid-ocean exchange of ballast water or retain all ballast water on board the vessel. The exchange or replacement of all water in tanks must occur with ocean waters located more than 200 nautical miles from land and at least 6,560 feet deep. Vessels must comply with "good housekeeping" practices, including the following: avoiding uptake or discharge in or near marine sanctuaries or reserves, minimizing or avoiding uptake in areas of known infestations or pathogens; minimizing or avoiding uptake near sewage outfalls or near dredging operations, cleaning ballast tanks regularly to remove sediment, disposing of sediments properly, minimizing discharge amounts, and removing fouling organisms from hulls, pipes, and other areas. Vessel owners or operators must submit ballast water report forms to the California State Lands Commission and must maintain a Ballast Water Management Plan specific to each vessel.[104] Other requirements of the act are concerned with hull husbandry, reduction of fouling, and the spread of non-native invasive species from fouling organisms as well as data gathering to better understand the threat of non-native invasive species to state waters and marine communities. It should be noted that cruise ships do not typically discharge ballast water due to the relatively light load that passengers and stores represent as a proportion of the total load on these vessels.
>
> Beginning 2010, certain vessels that carry ballast water must conduct ballast water treatment so that the ballast water discharged will contain:
>
> a) No detectable living organisms that are greater than 50 micrometers in minimum dimension;
>
> b) Less than 0.01 living organisms per milliliter that are less than 50 micrometers in minimum dimension and more than 10 micrometers in minimum dimension;

c) For living organisms that are less than 10 micrometers in minimum dimension:
  1) Less than 1,000 bacteria per 100 milliliter;
  2) Less than 10,000 viruses per 100 milliliter; and
  3) Concentrations of microbes that are less than:
    i. 126 colony forming units per 100 milliliters of Escherichia coli;
    ii. 33 colony forming units per 100 milliliters of Intestinal enterococci; and
    iii. 1 colony forming unit per 100 milliliters or 1 colony forming unit per gram of wet weight of zoologic samples of Toxicogenic Vibria cholera.

> These performance standards apply on January 1, 2010, to vessels constructed on or after that date that have a ballast water capacity of less than or equal to 5,000 metric tons. They apply on January 1, 2012, to vessels constructed on or after that date that have a ballast water capacity of greater than 5,000 metric tons. Ships with larger ballast water tanks have later compliance dates. Beginning January 1, 2020, vessels subject to the Marine Invasive Species Act will be prohibited from discharging ballast water with any living organisms of any size.

In response to Comment A-CSLC2-14, the middle of the fourth paragraph on EIR page 5.16-67 is revised as follows to update reference to the Marine Invasive Species Act (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> To protect waters, such as the Bay, from invasive species from visiting vessel ballast, the ~~Ballast Water Management Act~~ Marine Invasive Species Act requires that all vessels carrying ballast water either conduct a mid-ocean exchange of ballast water or retain all ballast water on board the vessel to prevent or reduce the introduction and spread of non-indigenous aquatic species into the state waters.

The above revisions do not change the analysis or conclusions presented in the EIR.

12.22.4 Construction-Related Water Quality [HY-3]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-RWQCB-01
O-ACEC-261
O-ACEC-263
O-Dolphin1-01
O-Dolphin3-03
O-Dolphin3-07
O-Dolphin3-10
O-WFA-01
I-Bump-01
I-Ferguson2-04
I-Horn-01
I-Quarles-01

- The EIR should provide a list of BMPs for preventing pollution and waste materials from entering the Bay, and describe potential storage locations for debris generated by construction activities. [A-RWQCB-01, O-ACEC-261, O-ACEC-263, O-Dolphin1-1, O-Dolphin3-03, O-Dolphin3-07, O-Dolphin3-10, O-WFA-01, I-Bump-01, I-Ferguson2-04, I-Horn-01, I-Quarles-01]

Response HY-3

Water quality impacts associated with construction and demolition on land and on the waterfront piers are addressed in Impact HY-1 on EIR pages 5.16-59 through 5.16-61. As noted in this impact analysis and in Comment A-RWQCB-01, these water quality impacts would be less than significant with implementation of standard construction management measures proposed as part of the project and with compliance with a Storm Water Pollution Prevention Plan (SWPPP) prepared in accordance with the State Water Resources Control Board (SWRCB) Construction General Stormwater Permit. The proposed standard construction measures include incorporating the use of barges moored in a position to capture and contain the debris generated during demolition and construction work. In the event that debris does reach the Bay, personnel in workboats within the work area would be required to immediately retrieve the debris for proper handling and disposal. These and other BMPs, such as covering of debris piles at storage areas and containment and covering of all waste piles every night, would be incorporated into the SWPPP for the project and other permitting requirements of the RWQCB.

The last paragraph on EIR page 5.16-60 is revised as follows to address where debris from demolition activities would be stored and to incorporate the best management practices required by the Construction General Permit and mentioned in Comment A-RWQCB-01 (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> As described in Chapter 3, Project Description, the project sponsor would implement standard construction specifications incorporating the use of barges moored in a position to capture and contain the debris generated during demolition and construction work. In the event that debris does reach the Bay, personnel in workboats within the work area would be required to immediately retrieve the debris for proper handling and disposal. Debris from demolition activities would be stored on land prior to disposal, and appropriate BMPs, including those required by the Construction General Permit, would be implemented to prevent the transport of dust and debris fragments to the Bay; these BMPs would include containment of waste piles and covering of the piles nightly as well as covering of the piles under high wind conditions. These measures would be incorporated into the SWPPP as ~~a~~ BMPs for the protection of water quality, which would be subject to the approval of the RWQCB. ~~Additionally, the project construction would be required to comply with any BMPs set forth in the Section 404 Corps permit as well as a BCDC Major Permit.~~

The above revisions do not change the analysis or conclusions presented in the EIR.

12.22.5 Dredging and Dredged Spoils Disposition [HY-4]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-BCDC-14
O-ACEC-321
O-Dolphin3-04
O-FOTE-03
O-MAS-16
O-MAS-17
I-Tow-04

- The EIR should identify disposal or reuse sites for dredged material. Cumulative impacts analysis should anticipate any future dredging needs of marinas. The EIR should include all results of testing sample dredged material. [A-BCDC-14]
- The project sponsors should analyze dredged material for pollutants and ensure that dredging complies with statewide sediment quality objectives (SQOs). The EIR must evaluate alternative dredging proposals and limit dredging to only those areas deemed absolutely necessary. [O-ACEC-321]
- The EIR does not adequately address the impacts of dredging on water quality. [O-Dolphin3-04]
- The EIR should contain a plan for disposal or reuse of dredged material, and testing should be performed on dredged material to identify any pollutants. [O-FOTE-03]
- Dredged material should be studied before the EIR is finalized and a disposal strategy should be presented. The EIR should discuss in more detail potential water quality degradation due to dredging and other discharges. [O-MAS-16]
- A comprehensive Monitoring and Enforcement Plan is required to enforce water quality regulations, prevent litter and sewage discharge, and impose penalties when warranted. Overseeing agencies should be funded and staffed. [O-MAS-17]
- The commenter is opposed to any dredging and any proposed marina construction that would require dredging. [I-Tow-04]

Response HY-4

In response to Comment A-BCDC-14, the last paragraph on EIR page 5.16-45 and first full paragraph on EIR page 5.16-46 are revised as follows to clarify the goals of the Long Term Management Strategy (LTMS) and describe available beneficial reuse sites for dredged materials (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> Historically, dredged material from navigation channels in San Francisco Bay was disposed of at various locations within the Bay, primarily at a site near Alcatraz Island (SF-11). In 1982, a large mound of dredged material was discovered at SF-11, posing a navigation hazard and demonstrating the need for site management to address the material type (i.e., grain size) as well as raising concerns regarding the impacts of dredged material disposal on the Bay's fisheries and other ecological resources. The *Long Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region, Management Plan* (LTMS Management Plan)[103] was ~~promulgated~~ adopted in 2000 by the Corps, the U.S. EPA, BCDC, and the San Francisco Bay RWQCB. The adopted LTMS Management Plan is a regional dredge material management program that identifies beneficial reuse as the preferred alternative disposal option to the extent practicable, ocean disposal at the San Francisco Deep Ocean Disposal Site (SFDODS) for other projects where practicable, and a continuation of unconfined in-Bay disposal at reduced levels for the remaining subset of dredging projects. ~~to regulate dredged material in San Francisco Bay. The goals of the LTMS Management Plan are to maintain in an economically and environmentally sound manner those channels necessary for navigation in San Francisco Bay and Estuary and~~

> ~~eliminate unnecessary dredging activities, conduct dredged material disposal in the most environmentally sound manner, maximize the use of dredged materials as a resource, and maintain the cooperative permitting framework for dredging and disposal applications.~~
>
> ~~Since its implementation, has significantly reduced the volume of dredged material disposed of in the Bay in comparison to historical levels. Some in-Bay disposal is still allowed under the LTMS Management Plan, although most dredged material is currently disposed of at the San Francisco Deep Ocean Disposal Site (SFDODS) or at other beneficial reuse sites currently permitted within the San Francisco Bay area.~~
>
> The LTMS agencies established a 12-year transition period sectioned into four "step-down" periods to allow time for beneficial reuse sites to be developed, permitted, and made available to allow dredgers time to begin using the alternatives.[103a] The LTMS program is in its third step-down period, and the average annual in-Bay disposal volume target limit is 2.1 million cubic yards. At the end of the fourth step-down period in 2012, in-Bay disposal of dredged material will be managed at approximately 1.25 million cubic yards per year. The annual volume limit for disposal at the SFDODS is 4.8 million cubic yards. The annual volume limit for each permitted beneficial reuse site varies according to the constraints of the individual site and the permit conditions defining the quality of sediment acceptable for disposal at the site. Currently, there are limited options for beneficial reuse for dredged material from the AC34 project due to availability and capacity, logistics, environmental and sediment suitability requirements, and economic factors.
>
> As part of the required permitting and DMMO process for dredging and disposal of dredge material, the sustainability and location of all viable and permitted disposal options are assessed per regional and federal guidance. As part of this process, reuse sites such as the Montezuma Wetlands Restoration Site, Carneros River Ranch, and Cullinan Ranch as well as the SFDODS are considered. The ultimate disposal site allocations are dependent on the final sediment suitability determinations that the DMMO approves. If dredge material is determined to be unsuitable for any of the beneficial reuse sites or SFDODS, the material can be disposed of at a permitted upland landfill. The recommended disposal site options are reviewed and approved by the DMMO.

The original proposals for dredging areas and depths were based on preliminary conceptual designs. As the project design developed, the dredging prisms were revised to reflect the ongoing analysis for the project and better defined project needs. Thus, some areas and associated dredging volumes have been revised and adjusted from the original estimates. However, as a worst case, the EIR analyzed the largest project proposed for potential project needs based on the project design at the time of publication. The project sponsor will continue to work through the permitting and DMMO process for dredging. If the dredging areas and volumes can be reduced based on navigational and project needs, then they will be.

[103a] San Francisco Bay Conservation and Development Commission, Long Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region (LTMS) Program, http://www.bcdc.ca.gov/dredging/ltms/ltms_program.shtml, accessed on September 13, 2011.

Water quality impacts related to dredging are addressed in Impact HY-1 (EIR pages 5.16-61 to 5.16-63). As discussed in this impact analysis, water quality effects related to dredging would be less than significant because, consistent with the requirements of a Section 401 water quality certification from the RWQCB, the project sponsor would implement best management practices to minimize water quality effects during dredging. Measures that would be implemented during dredging include using floating debris booms/silt curtains to contain turbidity and suspended sediments, and use of a clamshell bucket with a maximum capacity of 10 cubic yards that minimizes turbidity. Adverse water quality effects would not occur at the sediment disposal site because, as discussed on EIR pages 5.16-62 and 5.16.63, the project sponsor would conduct sampling to assess sediment quality in accordance with DMMO requirements, and the DMMO would not approve disposal of the sediments at a specific site unless the sediment quality were within the limits established in the permit for that site. This would ensure that the disposed materials would not adversely affect aquatic life and other biological resources, harm the beneficial use of the water, or affect the maximum benefit to the people of the state, a federal sanctuary, recreational area, or other waters of significant national importance.

In response to Comment A-BCDC-14, the third paragraph on EIR page 5.16-62 is revised as follows to address disposal alternatives for the dredged sediments and conformity with the LTMS goals (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> As described in the Setting section (Section 5.16.1.5, Sediment Quality), sediments historically dredged from Piers 30-32 and Pier 27 under the Port's maintenance dredging program have been suitable for in-Bay disposal at the Alcatraz disposal site. Characterization of ~~S~~sediments ~~analysis~~ within all areas to be dredged is being conducted to determine their suitability at multiple disposal sites. The results would be reviewed and approved by the DMMO and participating LTMS agencies, which would ensure that disposal of the sediments is consistent with the LTMS goals of reducing the volume of in-Bay sediment disposal. ~~of the proposed sediments for unconfined aquatic disposal at the Alcatraz disposal site (SF-11). Disposal could also occur at either the SF-DODS or upland disposal sites. The SF-DODS is located approximately 50 miles offshore of San Francisco in depths of 8,200 to 9,840 feet (2,500 to 3,000 meters) and was established in 1994 to provide an environmentally superior alternative to disposal in San Francisco Bay~~.
>
> The project sponsor is in the process of developing all environmental documentation to obtain all necessary permits and approvals from pertinent regulatory agencies to dredge and dispose of sediments, including a water quality certification from the RWQCB. The permitting agencies include the United States Army Corps of Engineers (Corps), United States Environmental Protection Agency (U.S. EPA), Regional Water Quality Control Board (RWQCB), Bay Conservation and Development Commission (BCDC), State Lands Commission (SLC), National Marine Fisheries Service (NMFS), and California Department of Fish and Game (CDFG). ~~would be required to obtain a new Section 404 permits from the Corps and a RWQCB water quality certification for the construction dredging. Disposal at the SF-DODS would be subject to the requirements of the Section 404 permit and RWQCB~~

> ~~water quality certification, and upland disposal of sediments must be conducted in accordance with waste discharge requirements issued to the designated disposal site~~.

Sediments to be dredged at the Piers 32-36 Open Water Basin, Piers 26-28 water area, and Piers 14-22½ were sampled in May 2011 following a DMMO approved sampling and analysis plan. The results will be presented in a result document to all DMMO agencies listed above for review and approval. Water quality impacts associated with dredging these sediments would be less than significant with implementation of best management practices consistent with the requirements of Section 401 water quality certification from the RWQCB as discussed above. Identification of a specific disposal site for the proposed sediments is not feasible until the results of the sediment sampling have been completely evaluated and final suitability determinations are approved by the DMMO and each permitting agency.

In response to Comment A-BCDC-14, the second paragraph on EIR page 5.16-86 is revised as follows to address maintenance dredging of marinas that could be constructed as part of the long-term development projects (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> Construction and operation of marinas in the Brannan Street Wharf (Piers 32-36) Open Water Basin and Rincon Point (Piers 14-22½) Open Water Basin would be subject to the Nonpoint Source Pollutant Control Program, discussed in Section 5.16.2.2, State Regulations, and implemented by the SWRCB and the California Coastal Commission. This program includes required water quality control measures for assessment, siting, and design of marinas to reduce water quality impacts from these activities. Through its permit process, the BCDC is vested with the authority to implement management measures applicable to marinas and could specify nonpoint source pollution control measures in its ~~Major P~~permit for the project. As part of its regional responsibility for protecting water quality, the RWQCB may also review BCDC's ~~Major P~~permit and conditions for the project.
>
> The marinas may also require maintenance dredging to maintain an adequate depth for berthed vessels. Compliance with permitting and DMMO requirements, including a water quality certification from the RWQCB and BCDC Dredging Policy 2, would ensure that water quality impacts associated with this dredging are less than significant. As part of the permitting process, appropriate disposal sites for the sediments would be identified and the most appropriate disposal site would be selected based on the sediment quality. Options for beneficial reuse or disposal at the SFDODS disposal site would be prioritized over in-Bay disposal, consistent with the goals of the LTMS.
>
> With implementation of the specified management measures, subject to review and approval by the BCDC, and permitting requirements for dredging, under a conceptual-level of analysis, water quality impacts related to construction and operation of the marinas would be *less than significant*.

In response to Comment A-BCDC-14, the following paragraph is added following the second paragraph on EIR page 5.16-87 to address cumulative impacts associated with dredging (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> The project would require dredging at the Brannan Street Wharf (Piers 32-36) Open Water Basin, in the Piers 28-30 water area, and at the Rincon Point (Piers 14-22½) Open Water Basin to accommodate sufficient depth for berthing AC34 boats (sponsor and/or spectator boats). Dredging may also be required to accommodate temporary berthing in other water basins along the waterfront and for maintenance of marinas that could be constructed and operated under the long-term development projects. Other projects listed in Table 5.1-1 that are located along the waterfront could also potentially involve dredging. If these projects disposed of dredged material at in-Bay disposal sites, they could cumulatively interfere with the LTMS strategy of reducing the annual volume of in-Bay disposal of sediments to 1.25 million cubic yards, a potentially significant impact. However, as discussed in Impact HY-1, as part of the DMMO permitting process, sediments dredged under the AC34 project are not proposed to be disposed of in the Bay. Because of this, the project's contribution to this cumulative impact would not be cumulatively considerable. Further, other dredging projects would be subject to the same permitting process that would prioritize beneficial reuse and disposal at the SFDODS site over in-Bay disposal.

The above revisions do not change the analysis or conclusions presented in the EIR.

Regarding a Monitoring and Enforcement Program, please see Response HY-9, below. Comments against dredging for marinas are noted.

12.22.6 In-Water Construction Activities [HY-5]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-185
A-NPS2-194
O-Dolphin3-07
O-Dolphin3-10
O-Dolphin3-14
O-WW-53
O-WW-54

- Additional moorings and increased yacht discharges at Fort Mason would disturb marine sediments and create water quality issues, and Army Corps of Engineers permits may be required for newly created moorings. [A-NPS2-185]
- Additional moorings in Aquatic Park could disturb sediments and affect water quality. Education and pumpout stations should be available for boats moored in Aquatic Park. [A-NPS2-194]
- The EIR must explain its proposed use of the Aquatic Park area in more detail and explore alternative mitigation measures. It must consider the ecologic impact on Aquatic Park, its users, and the surrounding area. [O-Dolphin3-07]

- Installation of the LED screen on a floating barge in Aquatic Park would disturb established currents and toxic pollutants trapped in sediment. Generator use could cause significant air and noise pollution. [O-Dolphin3-10]
- The EIR must address the effects of construction activities introducing debris and contaminants into the Bay. Mitigation plans allow fish and marine mammals to vacate construction areas but do not prevent the exposure of both fish and humans to hazardous materials. [O-Dolphin3-14]
- In Mitigation Measures M-HY-1 and LT-HY, the Spill Prevention Control and Countermeasure Plan and the Materials Management Disposal Plan leave specific mitigation measures unspecified until after project approval. These plans also lack enforceable performance standards. [O-WW-53, O-WW-54]

Response HY-5

Water quality impacts related to in-water construction activities such as installation of moorings and pile driving are addressed in Impact HY-1 (EIR pages 5.16-63 and 5.16-64). As discussed in this impact analysis, water quality effects related to short-term disturbance of sediments during the installation of moorings and pile driving would be less than significant because they would be temporary and, consistent with the requirements of a new Section 10 permit issued by the Corps and a water quality certification from the RWQCB, the project sponsor would implement best management practices such as the use of silt curtains to minimize water quality effects during in-water construction activities. Therefore, with compliance with permitting requirements, there would be no adverse effect on human health or aquatic life as a result of changes in water quality due to sediment disturbance, and no mitigation is necessary.

Please also see Chapter 11 for changes to the site plan and construction technique refinements at Aquatic Park under the AC34 Project Variant that were developed since publication of the Draft EIR.

Some comments stated that the mitigation measures lack specificity. Mitigation Measures M-HY-1 and M-LT-HY require the implementation of best management practices to protect water quality as well as protected species and their habitat(s) from pollution due to fuels, oils, and other harmful materials. In accordance with CEQA Guidelines Section 15370, a mitigation measure should either avoid an impact altogether or minimize the impact by limiting the degree or magnitude of an action or its implementation. Under CEQA, compliance with environmental regulations is a common and reasonable mitigation measure, and mitigation is not deferred when the mitigation measure recognizes the significance of an impact, commits to a range of mitigation alternatives, and specifies performance criteria. Mitigation Measures M-HY-1 and M-LT-HY are not deferred mitigation because they commit the project sponsor to a range of alternative methods to reduce the potential for a release of petroleum products, other hazardous materials, or other construction-related materials; restrict the use of these materials in such a way that they would not affect federally protected species or their habitats; provide for the cleanup of an emergency release; and provide for the appropriate and legal management of construction-related debris in such a way that water quality effects would not occur. Further, the Materials

Management Disposal Plan that would be prepared pursuant to these mitigation measures would be subject to the review and approval of the RWQCB. Therefore, no changes to Mitigation Measures M-HY-1 or M-LT-HY are necessary.

12.22.7 Enclosure of Water Basins [HY-6]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-BCDC-16	I-Tow-02

- The hydrodynamic modeling and analysis in the EIR are limited. Either more support should be provided for its conclusions, or the conclusions should be limited to the analysis given. [A-BCDC-16]
- The EIR does a poor job of addressing the impact of the proposed marina in the Rincon Point Open Water Basin. [I-Tow-02]

Response HY-6

The discussion of the hydrodynamic modeling provided on EIR page 5.16-64 is a summary of the modeling report provided in Appendix HY of the EIR. The EIR discussion highlights the major conclusions of the modeling. If the reader would like more detail regarding the modeling, it can be found in the report provided in Appendix HY. Further, note that, as discussed in Chapter 11, since publication of the Draft EIR in July 2011, the project sponsors have indicated that no wave attenuators would be installed at Piers 30-32 or the Brannan Street Wharf (Piers 32-36) Open Water Basin under the AC34 Project Variant.

As discussed on EIR page 5.16-84, the EIR provides a conceptual-level analysis of the long-term development projects that could be implemented pursuant to conditions in the Host Agreement, and when specific development proposals are made, these projects would be subject to separate project-level CEQA review and permitting processes, as applicable. Accordingly, the EIR includes a description of the regulatory requirements of the Nonpoint Source Pollutant Control Program related to the siting and operation of the marina at the Rincon Point (Piers 14-22½) Open Water Basin on page 5.16-86, along with the BCDC permitting process that would enforce these regulatory requirements. In general, it is reasonable to assume that compliance with the requirements of the Nonpoint Source Pollutant Control Program and BCDC permits would ensure that adverse water quality effects would not occur as a result of the siting or operation of the marina. In the future, if or when site-specific proposals for a permanent marina are submitted, the project-level CEQA document would include site-specific and project-specific information about the water quality measures that would be implemented to reduce significant impacts, consistent with regulatory and permitting requirements.

12.22.8 Development of Outreach Materials [HY-7]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-DBW-06
A-DBW-09
A-DBW-11
A-DBW-12
A-NPS2-185
A-NPS2-194
A-RWQCB-05
O-MAS-16

- The project sponsor should provide fuel pollution prevention tools to boating facilities with fueling services. [A-DBW-06]
- The project sponsor should develop educational signs that can be posted at waterway entrance points. Signs should cover clean boating practices, BMPs for potential sources of pollution, and sewage discharge laws. Pages 5.14-100, 5.14-102, 5.14-110 to 5.14-111, 5.14-116, 5.16-66 to 5.16-69, and 7-60 may need to be edited to reflect these recommendations. [A-DBW-09, A-DBW-11, A-DBW-12]
- Education should be available to prevent illegal yacht discharges. [A-NPS2-185]
- Education and pumpout stations should be available for boats moored in Aquatic Park. [A-NPS2-194]
- The EIR should provide a preliminary list of sources for its outreach materials. Outreach materials should include measures to prevent invasive species from leaving the Bay in addition to measures to prevent invasive species from entering the Bay. Outreach should be coordinated with agencies that regulate boating activities. [A-RWQCB-05]
- Simply providing visiting mariners information to visitors does not ensure they will comply with its regulations. [O-MAS-16]

Response HY-7

Provision of outreach materials to educate the operators of spectator vessels about environmentally sound boating practices and access to environmental services is discussed in Impact HY-1 (EIR pages 5.16-66 through 5.16-68) and included as a provision of Mitigation Measure M-BI-12 (Visiting Mariners Information). Implementation of a comprehensive outreach program in accordance with this measure, with the modifications noted below, would educate boaters about available marinas for berthing; existing regulations regarding the discharge or disposal of sewage, bilge water, ballast water, oily water, and other boat wastes and hazardous materials; locations of available sewage and bilge water pumpout facilities, oil change facilities, used oil recycling facilities, absorbent pad distribution and spent pad collection, boat-to-boat environmental services, and other waste collection and disposal facilities; and recommended best management practices to prevent pollution from boat discharges and wastes. The educational materials would be distributed to visiting boaters prior to or upon their arrival to San Francisco Bay for the AC34 events, and would be disseminated using multiple methods such as brochures or pamphlets; AC34 websites; boating, cruising, and newspaper periodicals; social media; area yacht clubs and marinas; and all AC34 mooring locations. Only event-sponsored exhibition boats, and no spectator vessels, would be moored at Aquatic Park. In accordance with applicable regulations, these event-related boats would not discharge fuel, oil, oily wastes, hazardous substances, or sewage within Aquatic Park. Therefore, educational materials and additional pumpout facilities for Aquatic Park, as requested in Comment A-NPS2-194, are not necessary.

The last sentence of the first paragraph of Mitigation Measure M-BI-12 on EIR page 5.14-100 is revised as follows to provide more detail about the educational materials, including the educational signs (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> Educational materials shall clearly address, in multiple languages, common sources of pollution from boats and marinas and ~~outline~~ relevant regulations and clean boating policies, and shall provide a succinct description of best management practices to prevent pollution from common sources including oil and fuel, sanitary waste, detergents, hazardous waste, and marine debris (including the use and proper disposal of oil adsorbents in power boat bilges).

In response to Comments A-NPS2-194, A-RWQCB-05, and A-DBW-9, the second paragraph of Mitigation Measure M-BI-12 (beginning at the bottom of EIR page 5.14-100) is revised as follows to include AC34 mooring locations and the provision of educational signs as well as additional resource agencies and organizations that would be consulted for development of outreach materials (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> The visiting mariners information in the Water and Air Traffic Plan shall include details on how this information will be disseminated to visiting boaters, including but not limited to brochures, ~~or~~ pamphlets, or educational signs; AC34 websites; boating, cruising, and newspaper periodicals; social media; ~~and~~ area yacht clubs and marinas; and all AC34 mooring locations. Educational information shall be made available at waterway entry points such as boat launch ramps, marinas, yacht clubs, and ports, in partnership with appropriate agencies, and where cooperation from boater facilities can be achieved. The plan shall be prepared soliciting input from and in cooperation with the National Marine Fisheries Service (NMFS), United States Coast Guard (USCG), California State Lands Commission, California Department of Fish and Game (CDFG), ~~National Park Service (NPS),~~ California Department of Parks and Recreation (CDPR), Bay Conservation and Development Commission (BCDC), State Water Resources Control Board, California Department of Boating and Waterways (DBW), California Coastal Commission, the Port of San Francisco, San Francisco Estuary Partnership, ~~and~~ local organizations active in protecting Bay marine resources, and relevant industry stakeholders, including but not limited to the California Harbormasters and Port Captains Association, Marine Recreation Association, Clean Marinas California Program, Recreational Boaters of California, Pacific Inter-Club Yacht Association, boat yard representatives, and local San Francisco Bay Area yacht clubs.

In response to Comment A-RWQCB-05, the fifth bullet of Mitigation Measure M-BI-12 (EIR page 5.14-102) is revised as follows to address the spread of invasive species from San Francisco

Bay (see Response HY-9d for an explanation of other text changes made in this bullet) (deleted text is shown as ~~strikethrough~~ and new text is underlined):

- Information on invasive species and their impact on Bay marine ecosystems and boaters as well as ~~and preventative steps~~ best management practices developed by the AC34 Invasive Species Task Force that boaters should ~~take~~ implement to prevent the introduction or spread of invasive species into and out of ~~the~~ San Francisco Bay. These provisions shall include but not be limited to pending and proposed regulations by state and federal agencies responsible for the control of invasive organisms and shall incorporate established effective strategies such as "clean before you go."

In response to Comments A-DBW-06 and A-RWQCB-05, the last paragraph of Mitigation Measure M-BI-12 (at the top of EIR page 5.14-103) is revised as follows to include provision of fuel pollution prevention tools and provide a preliminary list of sources that would be used for the development of outreach materials (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> Bay waters from private vessels. Additionally, the project sponsor ~~Event Authority c~~would develop, as part of official AC34 event literature, maps of the marinas that show the locations of fuel docks, sewage pumpouts, portable toilets, dump stations, used oil collection services, bilge pumpouts, oil absorbent pad distribution and collection services, oil change services, solid waste recycling services, and other environmental services for boaters. The sources of information for literature and maps developed under this mitigation measure shall include, as appropriate, information available through resources such as the San Francisco Estuary Partnership and California's Boating Clean and Green Campaign (including the San Francisco Bay Area Clean Boating Map) subject to agreement with the resources agencies and organizations providing input to the development of the outreach materials.

In response to Comments A-DBW-09 and A-DBW-11, the following revision is made to the first incomplete sentence on EIR page 5.16-67 to address the provision of educational signs (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> employment of clean boating habits. This measure would also require the project sponsor to provide educational signs posted at waterway entrance points such as boat launch ramps, marinas, yacht clubs, and ports in partnership with appropriate agencies, and where cooperation from boater facilities can be achieved.

In response to Comment A-RWQCB-05, the fourth paragraph on EIR page 5.16-67 is revised as follows to address the spread of invasive species from San Francisco Bay (see Response HY-9d for an explanation of additional revisions to this paragraph) (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> As described in the Setting above, the Central Bay has been identified as an impaired water body under Section 303(d) of the Clean Water Act, and among the listed pollutants causing

> the impairment designation is "exotic species," also referred to as non-native or invasive species. Invasive species may be introduced to the Bay via a number of avenues including discharges of ballast water as well as from anchor chain lockers, anchors, anchor chains, anchor lines, ship bilges, drains, and through-hull connections; this impact is discussed in Section 5.14.4, Marine Biological Resources. To protect waters, such as the Bay, from invasive species from visiting vessel ballast, the Ballast Water Management Act requires that all vessels carrying ballast water either conduct a mid-ocean exchange of ballast water or retain all ballast water on board the vessel to prevent or reduce the introduction and spread of non-indigenous aquatic species into the state waters. Regardless, the project sponsor takes the potential for the introduction of invasive species seriously and has established the AC34 Invasive Species Task Force to address the issue of invasive species as it relates to the AC34 events. In addition to the project sponsor, the task force is composed of expert members from the RWQCB, CDFG, the San Francisco Estuary Project, the California Coastal Commission, the State Lands Commission, the United States Coast Guard, and California Department of Boating and Waterways, and the Smithsonian Institute.
>
> As described in Section 5.14.4, Marine Biological Resources, **Mitigation Measure M-BI-12** (Visiting Mariners Information) would reduce the risk of ~~from~~ visiting ships ~~of~~ introducing non-native species to the Bay or spreading non-native species from the Bay from ballast water, hull fouling, anchor chain lockers, anchors, anchor chain, anchor line, ship bilges, drains, through-hull connections, and other locations on visiting boats. Outreach materials prepared in accordance with this measure would include best management practice guidelines developed by the AC34 Invasive Species Task Force, and would be disseminated to boaters according to a dissemination plan prepared under this mitigation measure. Furthermore, the potential for spread or accelerating the spread of already introduced invasive species during proposed in-water construction activities would be reduced to *less than significant* with implementation of **Mitigation Measure M-BI-16** (Invasive Marine Species Control ~~at Port Facilities~~). Please see Section, 5.14.4, Marine Biological Resources, for further description of this potential impact

The following revision is made to the last paragraph on page 5.16-68 to address the provision of educational signs (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> Implementation of **Mitigation Measure M-BI-12** (Visiting Mariners Information) would require the project sponsor to educate boaters and marinas about environmentally sound boating practices and access to environmental services to ensure employment of clean boating habits. This measure would also require the project sponsor to provide educational signs posted at waterway entrance points such as boat launch ramps, marinas, yacht clubs, and ports in partnership with appropriate agencies, and where cooperation with boater facilities can be achieved.

The above revisions do not change the analysis or conclusions presented in the EIR.

12.22.9 Increased Use of Boating Facilities [HY-8]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-DBW-16	O-ACEC-322

- The EIR should incorporate the Recommended Practices for boatyards being developed by the California Department of Toxic Substances Control. Bay marinas should install new pumpout systems to handle additional visitors. [A-DBW-16]
- The EIR should provide loans and other incentives for local marinas to comply with existing water quality standards, primarily the Statewide Industrial General Stormwater Permit. [O-ACEC-322]

Response HY-8

As discussed in Impact HY-1 on EIR pages 5.16-66 and 5.16-67, existing marinas and boatyards are subject to the Industrial General NPDES Permit if they have a point discharge of stormwater, and are subject to the Nonpoint Source Pollution Control Program if they do not. In addition, many of the marina and boatyard facilities undertake additional voluntary management practices to reduce pollutant contributions to Bay waters, such as distributing new or collecting used oil absorbent pads for small craft with inboard or outboard motors and using treatment systems to minimize discharge of heavy metals and other contaminants into waterways via stormwater. Any failure of existing marinas and boatyards to comply with existing regulations is considered part of the existing conditions, not an impact of the AC34 project.

However, the Water and Air Traffic Plan acknowledges that the AC34 events represent an excellent opportunity to stimulate more effective, environmentally responsible management practices. As such, the plan recommends working with industry representatives to develop and implement an industry-based green certification program analogous to the Clean Marinas program in place for marinas. There is not currently a similar certification program for boatyards, but discussions with members of the American Boat Builders and Repairers Association indicate that there may be one forthcoming. Because it is uncertain whether the full certification program could be in place for the 2012 events, the Draft Water and Air Traffic Plan suggests creating a boatyard and boat repair pledge program. As part of this program, boatyard facilities agreeing to use best management practices and to participate in a system of oversight to ensure compliance could be approved for inclusion on the visiting mariners' list of those operations willing to hold themselves to a higher environmental standard, with the accompanying marketing and social benefits that such a high-profile designation would provide. As noted by one commenter, the DTSC is in the process of promulgating best management programs for boatyards, and these may be a helpful source for the practices to be incorporated into the pledge, if available for the AC34 events in 2012 and 2013. Because some of the boatyards may need time to comply with the recommended best management practices, the visiting mariners information for the 2012 events would be a way to get the word out to operators and boaters alike about the intent to implement a more robust program for the 2013 events, and in doing so reflect the communication value of the uniquely high profile of this event. Implementation of the approach described in the Draft Water and Air Traffic Plan could prove beneficial to the Bay both during the events and as a legacy after the events are over. With implementation of this approach, additional incentives such as a revolving grant or loan fund are not necessary.

12.22.10 Boating Discharges, Spills, and Littering [HY-9]

This topic is further subdivided into the following sub-topics:

- HY-9a, Enforcement of Boating Regulations
- HY-9b, Increased Hazardous Waste Generation by Vessels
- HY-9c, Increased Sewage from Vessels
- HY-9d, Invasive Species
- HY-9e, Littering
- HY-9f, Water Quality Effects on Public Health

HY-9a, Enforcement of Boating Regulations—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-MBOS-05
A-NPS2-185
A-Sausalito-12
O-ACEC-324
O-FOTE-04
O-GGAS2-09
O-MAS-17
O-MCL-01
O-RBACS-02

- The expected influx of vessels visiting and/or anchoring in Richardson's Bay also raises significant issues related to the potential for increased discharge of effluents. [A-MBOS-05]
- Yachts may illegally discharge, with negative impacts on water quality, unless monitoring and enforcement are in place. [A-NPS2-185]
- Mitigation Measure M-BI-12 should be amended to require the project sponsor to prepare an anchorage management plan protecting the Richardson Bay marine ecosystem. In addition, Sausalito should be allowed to comment on the Water and Air Traffic Plan prior to final adoption. [A-Sausalito-12]
- The visiting mariners information guide is not yet available for review and cannot be assessed at this time. In addition, no provision is made for enforcement of water quality laws. Mitigation must describe and fund an enforcement program. [O-ACEC-324]
- Enforcement must address the discharge of sewage and grey water from boats. [O-FOTE-04]
- The EIR must explain if the Event Authority is legally responsible for enforcing water quality laws, and under what regulatory authority. The EIR must answer how many regulatory enforcers would be provided, and whether regulation would occur outside the perimeter of the race itself. [O-GGAS2-09]
- A comprehensive Monitoring and Enforcement Plan is required to enforce water quality regulations, prevent litter and sewage discharge, and impose penalties when warranted. [O-MAS-17]

- The EIR should discuss if responsible agencies have the capacity required to monitor the expected influx of boats. [O-MCL-01]
- The EIR must provide for pumpout stations and additional officers patrolling to prevent illegal boat dumping. [O-RBACS-02]

Response HY-9a

As discussed in Impact HY-1 on EIR pages 5.16-67 through 5.16-69, a number of state and federal regulations address prevention of pollution from boat discharges. These regulations are discussed in Section 5.16.2, Regulatory Framework, and include the International Convention for the Prevention of Pollution from Ships (MARPOL), Annexes IV and V that address the discharge of sewage from ships and restrict the dumping of garbage from ships; the Federal Ocean Dumping Act that addresses dumping; Marine Plastic Pollution Research and Control Act that specifies waste management requirements for certain ships; the federal Clean Water Act, which addresses permit requirements for point source discharges, prohibits most discharges of fuel, oil, oily waste or hazardous substances to navigable waters, and establishes effluent limitations for marine sanitation devices; the Marine Invasive Species Act that applies to ballast water management and specifies requirements to prevent the introduction of non-native species to the Bay; the California Health and Safety Code that prohibits the dumping of any garbage into navigable waters; and the California Fish and Game Code that prohibits the discharge of petroleum or any other substance harmful to fish, plants, and birds.

While compliance with these regulatory requirements would ensure that water quality effects associated with boat discharges would be less than significant, the EIR acknowledges on page 5.16-68 that potential impacts on water quality as a result of discharges from boats would be potentially significant because some boaters, including international visiting vessels, may not be familiar with U.S. regulations and there could be an increased likelihood of illegal discharges. There could also be an increased burden of enforcement due to the increased number of spectator boats during the AC34 events. Mitigation Measure M-BI-12 (Visiting Mariners Information) would require implementation of a comprehensive outreach program to educate boaters about environmentally sound boating practices and access to environmental services, including sewage pumpouts, portable toilets, dump stations, used oil collection services, bilge pumpouts, oil absorbent pad distribution and collection services, oil change services, solid waste recycling services, and other environmental services for boaters. Implementation of this measure, as modified in Response HY-7, would encourage voluntary compliance with existing regulatory requirements and provide boaters with the needed information to comply with the regulations, thereby slightly reducing the regulatory enforcement burden on Bay Area enforcement agencies. By reducing the regulatory enforcement burden and increasing awareness of environmental regulations, implementation of this mitigation measure would reduce water quality impacts related to any increased potential for boat discharges to less-than-significant levels, and no additional enforcement support such as a funded enforcement program would be required.

As specified in Mitigation Measure M-BI-12 included on EIR page 5.14-102 and revised in accordance with Response HY-7, the visiting mariners information would be prepared soliciting input from and in cooperation with the National Marine Fisheries Service (NMFS), United States Coast Guard (USCG), California State Lands Commission, California Department of Fish and Game (CDFG), California Department of Parks and Recreation (CDPR), Bay Conservation and Development Commission (BCDC), State Water Resources Control Board, California Department of Boating and Waterways, California Coastal Commission, San Francisco Estuary Partnership, and local organizations active in protecting Bay marine resources. Input and cooperation from these agencies and organizations would ensure that the appropriate information is provided to boaters. Further, the Draft Water and Air Traffic Plan which would include this notice would be available for public review prior to finalization.

HY-9b, Increased Hazardous Waste Generation by Vessels—Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

A-DBW-07

- The project sponsor should coordinate with the City and County of San Francisco Department of the Environment, Toxic Reductions Division, to set up temporary hazardous waste collection centers. [A-DBW-07]

Response HY-9b

Comment A-DBW-07 suggesting coordination with the Department of the Environment to set up temporary hazardous waste collection centers is acknowledged. As this information does not comment upon the adequacy of the EIR or the information contained therein, no response is necessary. This information will be forwarded to the City for consideration in the Waste Management Plan. In addition, as stated in the Draft Water and Air Traffic Plan, City staff are engaged in discussions with environmental and industry groups to determine ways by which additional waste handling services can be provided, through mobile pumpout services or other opportunities. If these discussions result in additional options for waste handling, such information will be incorporated into the Notice to Boaters prepared in accordance with Mitigation Measure M-BI-12, Visiting Mariners Information.

HY-9c, Increased Sewage from Vessels—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-DBW-05
A-DBW-15
A-DBW-16
A-MBOS-05
A-MCCDA-12
A-NPS2-136
A-NPS2-161
A-NPS2-194
A-NPS2-261
A-RBRA-03
O-ACEC-322
O-Dolphin1-01
O-Dolphin3-07
O-Dolphin3-14
O-FOTE-04
O-MAS-17
O-MCL-02
O-RBACS-02
I-Bump-01
I-Ferguson2-04
I-Quarles-01
I-Tow-01

- The project sponsor should work with marinas to develop contingency plans for pumpout failure and promote the use of mobile pumpout services. [A-DBW-05]
- Section 5.16 should provide better information regarding where the effluent from MSDs Type I and II cannot be discharged. [A-DBW-15]
- The EIR should incorporate the Recommended Practices for boatyards being developed by the California Department of Toxic Substances Control. Bay marinas should install new pumpout systems to handle additional visitors. [A-DBW-16]
- The expected influx of vessels visiting and/or anchoring in Richardson's Bay also raises significant issues related to the potential for increased discharge of effluents. [A-MBOS-05]
- The EIR should analyze the impacts of sanitary waste on Richardson's Bay, which is a federally designated "no discharge zone" under a TMDL plan. [A-MCCDA-12]
- Horseshoe Cove water quality must be protected from sewage discharges. [A-NPS2-136]
- Boat discharge in NPS-managed waters should be mitigated with marine sanitary waste management. [A-NPS2-161]
- Education and pumpout stations should be available for boats moored in Aquatic Park. [A-NPS2-194]
- The EIR should describe the impacts of sanitary waste on Richardson's Bay and mitigate the effects of increased sanitary waste due to additional vessels. [A-RBRA-03]
- The EIR should provide loans and other incentives for local marinas to comply with existing water quality standards, primarily the Statewide Industrial General Stormwater Permit. Marinas should be provided with adequate pumpout stations, and the project sponsor should facilitate the use of these pumpouts. [O-ACEC-322]
- The EIR must analyze the effect of sewage discharges on public health and local fish. The EIR must enforce sewage dumping regulations. [O-Dolphin3-14]
- Enforcement must address the discharge of sewage and grey water from boats. [O-FOTE-04]
- A comprehensive Monitoring and Enforcement Plan is required to enforce water quality regulations, prevent litter and sewage discharge, and impose penalties when warranted. The EIR should cite existing laws and regulations requiring boaters to avoid discharging sewage into No Discharge Zones. [O-MAS-17]
- The EIR must distribute pumpout stations around the Bay to maximize access. [O-MCL-02]
- The project sponsors must provide additional pumpout capacity and patrolling officers to protect the Sausalito waterfront from spectator boat waste. [O-RBACS-02]
- The EIR must protect marine wildlife and water quality from pollution caused by the entire event. [O-Dolphin1-01, O-Dolphin3-07, I-Bump-01, I-Ferguson2-04, I-Quarles-01, I-Tow-01]

Response HY-9c

Water quality impacts related to discharges of sewage from vessels are addressed in Impact HY-1 on EIR pages 5.16-67 through 5.16-69. As summarized in that impact analysis, recreational vessels with installed toilet facilities must have an operable MSD or holding tank on board and can only discharge the sewage onshore into a local sewage treatment facility. Larger vessels equipped with Type I and II MSDs are prohibited from discharging untreated sewage anywhere within the 3-mile territorial limit (including lakes, rivers, reservoirs, or coastal water within 3 miles of shore) or even treated sewage into any designated No Discharge Zone. Compliance with these requirements would ensure that adverse water quality effects from discharges of sewage from vessels would not occur. However, impacts on water quality as a result of the increased potential for sewage and other discharges to the Bay would be potentially significant because some boaters, including international visiting vessels, may not be familiar with U.S. regulations and there would also be an increased burden of enforcement due to the increased number of boats during the AC34 events.

Implementation of Mitigation Measure M-BI-12 (Visiting Mariners Information) would require the project sponsor to conduct a comprehensive outreach program to educate boaters and marinas about environmentally sound boating practices and access to environmental services, including sewage pumpout facilities, to ensure employment of clean boating habits. Further, the capacity and location of existing pumpout facilities would be addressed in preparation of the visiting mariners information, and as confirmed in Response HY-7, the notice would include a map of available pumpout facilities (including the pumpout facilities at the Hyde Street Harbor) and list of available mobile pumpout services. Compliance with sewage discharge regulations and the comprehensive outreach that would occur under Mitigation Measure M-BI-12 (Visiting Mariners Information) would protect water quality throughout the Bay, including Horseshoe Bay, and would ensure that there is not a public health risk of infection or risk of contamination of shell fish. As specified in Mitigation Measure M-BI-12 on EIR page 5.4-12, the visiting mariners information would be prepared in accordance with input from and in cooperation with agencies and organizations active in protecting Bay marine resources. No further mitigation, such as a sanitary waste management plan, is necessary to ensure that water quality impacts resulting from sewage discharges would be less than significant. As discussed in Response HY-7, only event-sponsored exhibition boats, and no spectator vessels, would be moored at Aquatic Park. In accordance with applicable regulations, these boats would not discharge sewage within Aquatic Park. Therefore, educational materials and additional pumpout facilities for Aquatic Park, as requested in Comment A-NPS-194, are not necessary.

Marina Boat Pumpout Facilities

Water quality impacts related to discharges of sewage from vessels are addressed in Impact HY-1 on EIR pages 5.16-67 through 5.16-69. As summarized in that impact analysis, recreational vessels with installed toilet facilities must have an operable MSD or holding tank on board and can only discharge the sewage on shore into a local sewage treatment facility. Larger vessels equipped with Type I and II MSDs are prohibited from discharging untreated sewage anywhere within the 3-mile territorial limit (including lakes, rivers, reservoirs, or coastal water within 3 miles of shore) or even treated sewage into any designated No Discharge Zone, including Richardson Bay. Compliance with these requirements will ensure that adverse water quality effects from discharges of sewage from vessels would not occur.

However, there is a potential that the capacity for the Bay Area pumpout systems at some locations could be exceeded by the large number of visiting boaters. The potential crowding resulting from increased use may also deter many boaters from using the pumpout systems, leading to increased risk of illegal sewage discharge. In addition, there may be limitations at many of the existing pumpout systems for use by large yachts (over 100 feet). As discussed in Chapter 11, the estimated maximum number of boats during peak race days in 2013 has been revised from the maximum number of boats estimated in the EIR. Based on current estimates, there would be 880 spectator boats—consisting of 800 recreational boats, 20 commercial charter boats, and 60 large private yachts—during peak race days in 2013. The number of boats is based on numbers from previous Fleet Weeks in San Francisco, including October 2011, as well as from the 32nd and 33rd America's Cup events; this estimate assumes that 90 percent of these boats would be local spectator boats originating from the Bay Area. Therefore, it assumed that the large majority of the spectator boats that would be expected to attend the AC34 events are currently being accommodated by the existing pumpout facilities, and the proposed project would result in an incremental increase in demand for pumpout facilities associated with the 10 percent of the boats originating from outside of the Bay Area. As discussed in Section 5.16, Impact HY-1, pages 5.16-67 to 5.16-69, the EIR determined that this potentially significant impact would be reduced to a less-than-significant level with implementation of Mitigation Measure M-BI-12 (Visiting Mariner Information) on page 5.14-102.

Implementation of Mitigation Measure M-BI-12 (Visiting Mariners Information) would require the project sponsor to conduct a comprehensive outreach program to educate boaters and marinas about environmentally sound boating practices and the location of environmental services, including sewage pumpout facilities, to ensure employment of clean boating habits. Further, the capacity and location of existing pumpout facilities would be addressed in preparation of the visiting mariners information, and as confirmed in Response HY-7, the notice would include a map of available pumpout facilities (including the pumpout facilities at the Hyde Street Harbor) and list of available mobile pumpout services. Compliance with sewage discharge regulations and the comprehensive outreach that would occur under Mitigation Measure M-BI-12 (Visiting Mariners Information) would protect water quality throughout the Bay, including Horseshoe Bay, and would ensure that there is not a public health risk of infection or risk of contamination of shell fish. As specified in Mitigation Measure M-BI-12, the visiting mariners information would be prepared in accordance with input from and in cooperation with agencies and organizations active in protecting Bay marine resources.

As stated in the Draft Zero Waste Plan (also known as Waste Management Plan), 38 marinas have sewage pumpout systems in the Bay, and only 10 marinas are expected to experience abnormal variance in their sewage pumpout usage due to their proximity to the event. The Draft Zero Waste Plan and Draft Water and Air Traffic Plan call for the project sponsor to provide a map showing bilge and sewage water pumpouts, as well as other environmental services, thereby diverting pumpout demand to the approximately 28 facilities with excess capacity. In addition, the project sponsors would include a provision in the berthing agreement for use of floating docks, and a vessel renting a slip at a floating dock would be required to either have sufficient holding tanks, or be willing to use pellets or some other device in their head system to discourage effluent discharges. Large, private yachts, which would occupy many of the floating dock berths, would be equipped with onboard waste management systems in accordance with existing regulations and would be prohibited from discharging untreated sewage.

Existing discharge regulations and implementation of Mitigation Measure M-BI-12 would inform visiting mariners about approved sewage pumpout facilities, and as summarized above, there would not be a substantial increase in the amount of sewage produced. Therefore, no further mitigation, such as a sanitary waste management plan or provision of additional pumpout facilities at Aquatic Park, is necessary to ensure that water quality impacts resulting from sewage discharges would be less than significant.

Mobile Boat Pumpout Facilities

Mobile pumpout services are considered a boat-to-boat environmental service, and use of these would be encouraged in the visiting mariners information as indicated in the ninth bullet of Mitigation Measure M-BI-12 on EIR page 5.14-102.

The Richardson Bay Audubon Center and Sanctuary is located in the northern portion of Richardson Bay. As stated in the text edits below, Richardson Bay has been designated by the U.S. EPA as a No Discharge Zone; therefore, the discharge of sewage in the bay is prohibited, even if treated. Rather, boats occupying the bay would be required to use available pumpout stations or mobile pumpout services. To facilitate the use of these facilities, the location of available pumpout stations and a list of available mobile pumpout services would be included in the visiting mariners information distributed in accordance with Mitigation Measure M-BI-12. Therefore, adverse water quality effects, and related effects on wildlife or children using the bay, would not occur in Richardson Bay near the Audubon Center and Sanctuary as a result of sewage discharges from vessels.

In response to Comment A-DBW-05, the ninth bullet of Mitigation Measure M-BI-12 on EIR page 5.14-102 is revised as follows to clarify the use of mobile pumpout facilities (deleted text is shown as ~~strikethrough~~ and new text is underlined):

- Information about onsite and nearby environmental services that support clean boating practices (such as the locations of sewage pumpouts, oil change facilities, used oil recycling centers, bilge pumpouts, absorbent pad distribution and spent pad collection, and boat-to-boat environmental services such as mobile pumpout services)

In response to Comment A-MCCDA-12, the following text is added after the first paragraph on EIR page 5.16-18 to describe Richardson Bay as an impaired water body (deleted text is shown as ~~strikethrough~~ and new text is underlined):

Richardson Bay

The RWQCB also listed Richardson Bay as an impaired water body. The pollutants listed for Richardson Bay include chlordane, coliform bacteria, DDT, dieldrin, dioxin compounds, exotic species, furan compounds, mercury, and PCBs.[39a]

[39a] San Francisco Bay Regional Water Quality Control Board, 2006 *CWA 303(d) List of Water Quality Segments Requiring TMDLs*, approved by the United States Environmental Protection Agency on June 28, 2007.

In response to Comment A-DBW-15, the following text is added to the beginning of the fourth paragraph on EIR page 5.16-36 to provide additional information regarding the restrictions on discharges from Type I and II marine sanitary devices (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> It is illegal to discharge Type I and II MSDs while in "restricted waters" such as a marina, a swimming or wading area, a sanctuary, poorly flushed areas, lakes, reservoirs, or freshwater impoundments and federally designated No Discharge Zones. In these waters, Type I or II MSDs must be connected to a holding tank or secured to prevent any sewage discharge. Fines of up to $2,200 can be imposed for illegal discharges. Where discharge is legal, ~~F~~for Type I MSDs the fecal coliform count in the effluent must be…

In response to Comment A-MCCDA-12, the following text is added to the end of the second paragraph on EIR page 5.16-39 to address the TMDL prepared for Richardson Bay (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> …SEWPCP. A TMDL for pathogens in Richardson Bay has also been approved by the U.S. EPA and officially incorporated into the Basin Plan.[93a] In accordance with the adopted Basin Plan amendment, discharges of raw or inadequately treated sewage to Richardson Bay from vessels is prohibited and all sources of treated or inadequately treated human wastes have a discharge allocation of zero for fecal colliform.

In response to Comment O-MAS-17, the second paragraph on EIR page 5.16-68 is revised as follows to address regulatory requirements relating to sewage discharges from vessels, and established No Discharge Zones (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> Regarding sewage discharges, in accordance with Annex IV of the MARPOL convention and Section 312 of the CWA, recreational vessels with installed toilet facilities must have an operable MSD or holding tank on board and can only discharge the sewage on shore into a local sewage treatment facility. Larger vessels equipped with Type I and II MSDs are prohibited from discharging untreated sewage anywhere within the 3-mile territorial limit (including lakes, rivers, reservoirs or coastal water within 3 miles of shore) or even treated sewage into any designated No Discharge Zone.

The above revisions do not change the analysis or conclusions presented in the EIR.

[93a] San Francisco Bay Regional Water Quality Control Board, Pathogens in Richardson Bay, Adopted Basin Plan Amendment.

HY-9d, Invasive Species—Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

O-Dolphin3-14

- The EIR must assess the efficacy of the outreach program in stopping the spread of *Undara pinnatifida* and other invasive species due to visiting boats. [O-Dolphin3-14]

Response HY-9d

As discussed in Impact HY-1 on EIR page 5.16-7, although vessels carrying ballast water would not be allowed to discharge ballast water in the Bay in accordance with the Marine Invasive Species Act, potential water quality impacts related to the introduction of invasive species from spectator vessels are considered potentially significant because invasive species may be introduced to the Bay through a number of other avenues, such as from anchor chain lockers, anchors, anchor chains, anchor lines, ship bilges, drains, and through-hull connections. This impact would be less than significant with implementation of Mitigation Measure M-BI-12 (Visiting Mariners Information), which includes a comprehensive outreach program to educate boaters about what preventative measures they should take to prevent the introduction or spread of invasive species in the Bay.

Further, the Port of San Francisco, with the help of the America's Cup Event Authority and RWQCB staff, has established the AC34 Invasive Species Task Force to address the issue of invasive species as it relates to the AC34 events. In addition to the project sponsors, the task force is composed of expert agency members from the RWQCB, CDFG, the San Francisco Estuary Project, the California Coastal Commission, the State Lands Commission, the United States Coast Guard, and California Boating and Waterways. With the help of RWQCB staff, the task force is in the process of drafting best management practice guidelines that would be distributed to boaters who may attend AC34, and the task force is working together to create a detailed dissemination plan that will describe how each category of vessel associated with the AC34 events would be contacted, including spectator vessels from outside and around San Francisco Bay, with a particular focus on those categories of boats with the highest potential to introduce invasive species. These additions will enhance the efficacy of Mitigation Measure M-BI-12, which will ensure that impacts related to the introduction of invasive species from vessels and construction activities would be less than significant.

The fourth paragraph on EIR page 5.16-67 is revised as follows to address formulation of the task force and preparation of best management practices, the dissemination plan, and the Invasive Species Control Plan (see Response HY-7 for an explanation of other revisions to this text) (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> As described in the Setting above, the Central Bay has been identified as an impaired water body under Section 303(d) of the Clean Water Act, and among the listed pollutants causing the impairment designation is "exotic species," also referred to as non-native or invasive

species. Invasive species may be introduced to the Bay via a number of avenues including discharges of ballast water as well as from anchor chain lockers, anchors, anchor chains, anchor lines, ship bilges, drains, and through-hull connections; this impact is discussed in Section 5.14.4, Marine Biological Resources. To protect waters, such as the Bay, from invasive species from visiting vessel ballast, the Ballast Water Management Act requires that all vessels carrying ballast water either conduct a mid-ocean exchange of ballast water or retain all ballast water on board the vessel to prevent or reduce the introduction and spread of non-indigenous aquatic species into the state waters. Regardless, the project sponsor takes the potential for the introduction of invasive species seriously and has established the AC34 Invasive Species Task Force to address the issue of invasive species as it relates to the AC34 events. In addition to the project sponsors, the task force is composed of expert agency members from the RWQCB, CDFG, the San Francisco Estuary Project, the California Coastal Commission, the State Lands Commission, the United States Coast Guard, and California Boating and Waterways.

As described in Section 5.14.4, Marine Biological Resources, **Mitigation Measure M-BI-12** (Visiting Mariners Information) would reduce the risk of ~~from~~ visiting ships ~~of~~ introducing non-native species to the Bay or spreading non-native species from the Bay from ballast water, hull fouling, anchor chain lockers, anchors, anchor chain, anchor line, ship bilges, drains, through-hull connections, and other locations on visiting boats. Outreach materials prepared in accordance with this measure would include best management practice guidelines developed by the AC34 Invasive Species Task Force, and would be disseminated to boaters according to a dissemination plan prepared under this mitigation measure. Furthermore, the potential for spread or accelerating the spread of already introduced invasive species during proposed in-water construction activities would be reduced to *less than significant* with implementation of **Mitigation Measure M-BI-16** (Invasive Marine Species Control ~~at Port Facilities~~). Please see Section, 5.14.4, Marine Biological Resources, for further description of this potential impact.

The fifth bullet on EIR page 5.14-102 is revised as follows to reflect the updated information from Chapter 11 (see Response HY-7 for an explanation of other text changes made to this bullet) (deleted text is shown as ~~strikethrough~~ and new text is underlined):

- Information on invasive species and their impact on Bay marine ecosystems and boaters as well as ~~and preventative steps~~ best management practices developed by the AC34 Invasive Species Task Force that boaters should ~~take~~ implement to prevent the introduction or spread of invasive species into and out of ~~the~~ San Francisco Bay.

The above revisions do not change the analysis or conclusions presented in the EIR.

HY-9e, Littering—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-DBW-08
A-RWQCB-02
O-Dolphin1-01
O-Dolphin3-07
O-ACEC-325
O-MAS-17
O-RBACS-04
I-Bump-01
I-Ferguson2-04
I-Quarles-01

- The Zero Waste Plan should schedule volunteer cleanup events in coordination with existing California Coastal Commission cleanup programs. [A-DBW-08]
- The Waste Management Plan should include an outreach program to inform spectators where trash receptacles are located and encourage proper disposal of trash. Trash receptacles should be in areas where vendors are not present, and the plan should include enforcement and cleanup. [A-RWQCB-02]
- To be effective, the Waste Management Plan must include requirements such as requiring official vessels to include trash recovering skimmers, limiting plastic containers, and banning single-use containers. [O-ACEC-325]
- A comprehensive Monitoring and Enforcement Plan is required to enforce water quality regulations, prevent litter and sewage discharge, and impose penalties when warranted. A Waste Management Plan is proposed to provide sanitary facilities to prevent litter. [O-MAS-17]
- The EIR should provide ongoing patrolling and cleanup of Bay beaches to control marine debris and ensure water quality. [O-RBACS-04, O-Dolphin1-01, O-Dolphin3-07, I-Bump-01, I-Ferguson2-04, I-Quarles-01]

Response HY-9e

The Draft Zero Waste Plan has been developed under the direction of the San Francisco Department of the Environment with input from the Port of San Francisco, Event Authority, and representatives from the GGNRA and San Francisco Maritime National Historical Park, as described on EIR page 3-89, and this description is updated in Chapter 11. Elements of the Draft Zero Waste Plan include requirements for food and beverage vendors to use compostable and/or recyclable to-go food utensils and packaging, requirements for vendors to maintain adequate composting and recycling receptacles and service levels to meet demand for expected crowds, coordination with local recycling and composting collection firms to ensure adequate collection service, and prohibitions on the use of non-recyclable or non-compostable food service materials in event areas. In addition, the Draft Sustainability Plan described on EIR page 3-89 emphasizes resource efficiency to minimize waste and includes strategies to achieve this goal such as avoiding the use of single-serve water bottles, limiting the distribution of printed information, requiring that vendors use reuseable, recyclable, or compostable serviceware in event venues, complying with the San Francisco Plastic Bag Reduction Ordinance, minimizing packaging at event venues, bringing offshore event-race-boat-related waste back to onshore facilities for processing, and supporting efforts to collect litter along the Bay shore near event venues. Limiting the production of trash and providing adequate receptacles and collection services would ensure that trash does not enter the Bay; therefore, no mitigation is required for this less-than-significant impact. Further, the Draft Sustainability Plan was available for public review and public comments will be considered in the final plan. Similarly, the Draft Zero Waste Plan will be available for public review prior to finalization, which will provide the public with an opportunity to provide input to the plan.

The Draft Zero Waste Plan specifies that the project sponsor will work with local coastal stewardship organizations to organize volunteer clean shoreline and marine cleanup efforts.

HY-9f, Water Quality Effects on Public Health—Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

O-Dolphin3-14

- The EIR must address the impacts of boating emissions on swimmers, the effects of sewage discharge on public health and local fish, and the impacts of construction activities introducing debris, toxic materials, and other contaminants into the Bay. Disabling land-based cruise ship power for several years would increase the number of moored boats running on full diesel, greatly increasing Bay pollution. [O-Dolphin3-14]

Response HY-9f

Diesel emissions would have a negligible, if any, impact on water quality. Temporary pollutant emissions related to AC434 operations would primarily consist of organic gases, oxides of nitrogen, carbon monoxide, and carbon dioxide that would be airborne and would not result in deposition in the Bay. As discussed on EIR page 5.8-8, diesel emissions also include fine particles referred to as particulate matter, a class of air pollutants that can be toxic when inhaled. Particulate matter is measured in two size ranges: PM_{10} for particles less than 10 microns in diameter, and $PM_{2.5}$ for particles less than 2.5 microns in diameter. Deposition of larger particulate matter (greater than 10 microns in diameter) would be a fraction of the particulate matter quantified for the purposes of the air quality assessment discussed in Impacts AQ-4 and AQ-5 on EIR pages 5.8-32 through 5.8-37. Particulate matter of 10 microns in diameter or less would be negligible in comparison to the existing silt loadings of the Bay. Further, diesel emissions would be minimized during the race events with implementation of Mitigation Measures M-AQ-4a and M-AQ-4c (EIR page 5.8-34), which would require the use of emission controls for race-sponsored vessels and require use of low-emissions fuels as part of any berthing contract; and Mitigation Measure M-AQ-5 (EIR page 5.8-37), which would minimize the use of diesel generators but require the use of clean diesel engines for temporary power if no other power sources are feasible. See Section 12.13, Response AQ-5, for descriptions of revised and augmented air quality mitigation measures that replace the measures identified in the Draft EIR.

12.22.11 Post-Construction Stormwater Management [HY-10]

This topic is further subdivided into the following sub-topics:

- HY-10a, Post-Construction BMPs
- HY-10b, Coverage under Industrial Stormwater Permit

HY-10a, Post-Construction BMPs—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-RWQCB-03
O-ACEC-320
O-NRDC-04
O-NRDC-21
O-STB-04

- The EIR should include the locations and types of stormwater improvements being proposed for the cruise terminal. [A-RWQCB-03]
- Additional information is required regarding post-construction BMPs managing stormwater, areal extent of new impervious surfaces, stormwater sizing calculations, and green infrastructure techniques. [O-ACEC-320]
- Green infrastructure solutions should be required. [O-NRDC-04]
- The EIR should commit to green infrastructure solutions. Low-impact development should be incorporated into new facilities to reduce combined sewer overflows. [O-NRDC-21]
- The EIR should provide specific measures designed to mitigate stormwater impacts after cruise terminal construction, such as use of retrofitted impervious surfaces, green infrastructure BMPs, and capture and treatment methods consistent with the San Francisco Stormwater Design Guidelines. [O-STB-04]

Response HY-10a

As stated in Impact HY-2 on EIR pages 5.16-72 and 5.16-73, with the exception of floating docks that would be installed at various piers and water basins along the bayside waterfront of San Francisco, none of the proposed project improvements constructed for the AC34 events would increase the amount of impervious surfaces within the project area, or otherwise result in an increase in stormwater runoff.

Proposed improvements for the cruise terminal at Piers 27-29 include five major surface areas that require consideration for designing stormwater controls: the new cruise terminal building, the ground transportation area, the Northeast Wharf Plaza, the Eastern Apron, and the North Park. The cruise terminal building would occupy almost 11 percent of the site area and would include a rainwater harvesting system (described on EIR page 3-104) using siphonic roof drains to direct rainfall to a series of storage tanks in the cruise terminal. The reclaimed water would be distributed via reclaimed water distribution lines to building reclaimed water fixtures, landscaping, and other potential uses. The Northeast Wharf Plaza would also occupy about 11 percent of the site and would primarily consist of vegetated surface that provides stormwater control. Stormwater control for the ground transportation area and North Park is expected to be a blended approach that could include drainage with media filters, planter filters, and some vegetated swales. The Eastern Apron would receive limited vehicular traffic and the need for stormwater control is being analyzed.

As discussed on EIR page 5.16-52, the San Francisco Stormwater Design Guidelines specify that projects served by separate sewers must capture and treat (1) the flow of stormwater runoff resulting from a rain event equal to at least 0.2 inch per hour of intensity, or (2) 80 percent or more of the annual stormwater runoff volume, determined from design rainfall capture curves for San Francisco. The Stormwater Control Plan(s) prepared in accordance with the Stormwater Design Guidelines will cover both the AC34 and Cruise Terminal projects and will provide an overview of post-construction best management practices to be constructed as part of the project, including the rainwater harvesting system at the cruise terminal and other stormwater controls described above, to meet the stormwater performance measures of the San Francisco Stormwater Design Guidelines. The Stormwater Control Plan will also describe the areal extent of new and replaced impervious surfaces from all project activities, identify opportunities for and constraints on various post-construction best management practices at San Francisco waterfront locations (including green infrastructure solutions), and stormwater sizing calculations.

Because the project sponsor would be required to prepare and implement a Stormwater Control Plan, subject to review by the Port of San Francisco, the San Francisco Public Utilities Commission (SFPUC), and the San Francisco Planning Department, that demonstrates how the project would meet the stormwater performance measures of the San Francisco Stormwater Design Guidelines, impacts related to exceeding the capacity of an existing or planned stormwater drainage system would be less than significant as concluded on EIR page 5.16-81 and no additional information is necessary for the EIR analysis. Note that with the exception of a small portion of Pier 80 and Seawall Lot 330, none of the AC34 sites, including Piers 27-29 where the cruise terminal would be constructed, discharge stormwater to the combined sewer system, and therefore changes in stormwater runoff from these sites would have no effect on the frequency or volume of combined sewer overflows from San Francisco's combined storm and sanitary system.

The third paragraph on EIR page 5.16-73 is revised as follows to clarify the performance measures of the San Francisco Stormwater Design Guidelines (see Response HY-12 for an explanation of other edits made to this paragraph) (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> ~~In addition, the AC34 events would be conducted during the dry season when no stormwater runoff would be generated.~~ Further, in accordance with the Stormwater Design Guidelines discussed in Section 5.16.2.3, Local Regulations, the project sponsor would be required to prepare and implement a Stormwater Control Plan identifying how the stormwater discharges would be treated to ~~comply with~~ meet the performance measures of the San Francisco Stormwater Design Guidelines discussed in Section 5.16.2.3, Local Regulations (which require capture and treatment of [1] the flow of stormwater runoff resulting from a rain event equal to at least 0.2 inch per hour of intensity, or [2] 80 percent or

more of the annual stormwater runoff volume, determined from design rainfall capture curves for San Francisco)~~Stormwater Management Ordinance~~, and specifying BMPs for the treatment of stormwater discharges. Such BMPs may include features such as rain gardens in the streetscape, aboveground planters for biofiltration, or separators or media filters to remove stormwater pollutants. The Stormwater Control Plan would be subject to approval by the Port of San Francisco, the San Francisco Public Utilities Commission (SFPUC), and the San Francisco Planning Department as a condition of project approval to certify that the performance measures of the Stormwater Design Guidelines are met.

The impact analysis for Impact HY-6 on EIR page 5.16-81 is revised as follows to address the rainwater collection system at the cruise terminal (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> **Impact HY-6: Operation of the Cruise Terminal and Northeast Wharf Plaza would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. (Less than Significant)**
>
> There would be no impacts associated with changes in the volume of stormwater runoff from Pier 27 as a result of construction of the James R. Herman Cruise Terminal or the Northeast Wharf Plaza. Pier 27 is currently 100-percent paved and drains directly to the Bay either by sheet flow or via surface drains. The cruise terminal and associated facilities would also be fully paved. Therefore, there would not be a measurable change in the volume of stormwater runoff as a result of construction of the cruise terminal. Further as described in Chapter 3, Project Description, on page 3-104, the design of the cruise terminal includes a rainwater harvesting system using siphonic roof drains to direct rainfall to a series of storage tanks in the cruise terminal. The reclaimed water would be distributed via reclaimed water distribution lines to building reclaimed water fixtures, landscaping, and other potential uses. ~~Further~~ In addition, the Northeast Wharf Plaza would be constructed of natural turf underlain by a soil bed and base drain mat, which would slightly reduce the volume of stormwater runoff at the Northeast Wharf Plaza site, and other areas of the site would use a blended approach that could include drainage with media filters, planter filters, and some vegetated swales.
>
> All stormwater improvements would meet or exceed the stormwater performance measures of the San Francisco Stormwater Design Guidelines discussed in Section 5.16.2.3, Local Regulations, which require capture and treatment of (1) the flow of stormwater runoff resulting from a rain event equal to at least 0.2 inch per hour of intensity, or (2) 80 percent or more of the annual stormwater runoff volume, determined from design rainfall capture curves for San Francisco. The rainwater harvesting system would also put captured rainwater to beneficial reuse and reduce stormwater flows from the site. These proposed improvements would only result in negligible contributions to pollutants in stormwater runoff, because no boat maintenance or other activities that involve the use of hazardous materials would be conducted at Pier 27. ~~In addition, stormwater runoff from the proposed improvements would~~

> ~~be discharged to the new stormwater management features (including storm drains, collection systems, and conveyance systems, described in Chapter 3, Project Description.~~
>
> In accordance with the Stormwater Design Guidelines ~~discussed in Section 5.16.2.3, Local Regulations~~, the project sponsor would be required to prepare and implement a Stormwater Control Plan describing the rainwater harvesting system and other stormwater improvements, describing the areal extent of new and replaced impervious surfaces, identifying opportunities and constraints for of various post-construction best management practices (including green infrastructure solutions), and providing stormwater sizing calculations in compliance ~~with identifying how the stormwater discharges would be treated to comply~~ with the San Francisco Stormwater Management Ordinance, and specifying BMPs for the treatment of stormwater discharges. With implementation of water quality control measures required for compliance with the San Francisco Stormwater Management Ordinance (as specified in the Stormwater Design Guidelines), impacts related to additional sources of stormwater pollutants would be *less than significant*.

The above revisions do not change the analysis or conclusions presented in the EIR.

HY-10b, Coverage Under Industrial Stormwater Permit—Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-RWQCB-06	O-ACEC-320

- Operating solely during the dry season is not a basis for avoiding the General Industrial Stormwater Permit. To avoid coverage, a facility must either discharge only to a sanitary or combined sewer system, or capture and dispose of process stormwater onsite. [A-RWQCB-06]
- The EIR should include measures to assure compliance with the San Francisco Stormwater Management Ordinance and the Statewide Industrial General Stormwater Permit. [O-ACEC-320]

Response HY-10b

The commenters note that facilities are required to obtain coverage under the General Industrial Stormwater Permit if they will discharge via a separate stormwater collection and conveyance system, even if they are not in place during the rainy season. Accordingly, text indicating that this permit would not apply to facilities that are not in place during the rainy season is deleted from the EIR. Best management practices to be used to control stormwater pollution at facilities subject to this permit would be provided in the SWPPP prepared in accordance with the General Industrial Stormwater Permit, and the SWPPP would be subject to the approval of the RWQCB to ensure that the proposed practices are sufficient for the control of pollutant sources and protection of water quality.

The last sentence of the first paragraph on EIR page 5.16-42 is revised as follows to delete reference to the rainy season (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> The SWPPP must identify sources of pollutants and the means to manage these sources to reduce stormwater pollution. Any project activities that are regulated under this permit, including water transportation (Standard Industry Code [SIC] 4493) and ship and boat building or repairing yards (SIC 3731), would have to obtain coverage under this permit ~~if they remain in place through the rainy season~~.

The fourth and fifth paragraphs on EIR page 5.16-68 are revised as follows to indicate that the General Industrial Stormwater Permit would no longer apply to temporary berthing locations (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> ~~In addition to the above regulatory requirements, the project sponsor would be required to obtain coverage under the Industrial General Stormwater Permit described in Section 5.16.2.2, State Regulations, for temporary berthing locations constructed for AC34 events. In accordance with this permit, the project sponsor would be required to prepare and implement a SWPPP identifying sources of pollutants and the means to manage these sources.~~
>
> Despite regulations regarding operations of vessels within U.S. waters~~,~~ and preparation of a Zero Waste Plan (also known as Waste Management Plan) as part of the AC34 events, ~~and compliance with the requirements of the Industrial Stormwater Permit,~~ impacts on water quality as a result of the increased potential for ballast water discharges, bilge water discharges, oily water discharges and hazardous materials spills, sewage discharges, and littering in the Bay would be *potentially significant* because some boaters, including international visiting vessels, may not be familiar with U.S. regulations and there would also be an increased burden of enforcement due to the increased number of boats during the AC34 events.

The last two paragraphs on EIR page 5.16-72 (continuing on to EIR page 5.16-73) are revised as follows to reflect the addition of limited boat maintenance activities at Pier 19 and provide more information regarding the use of hazardous materials and timing of activities at the team bases (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> With the exception of the proposed team bases and limited maintenance of support boats that could occur at Pier 19, none of the activities planned at the AC34 venues would include the use of hazardous materials or other potential stormwater pollutants that could degrade water quality during either of the AC34 events. However, the team bases that would be constructed at Pier 80 and at Piers 30-32 and limited boat maintenance that would occur at Pier 19 would involve boat maintenance activities and the use of hazardous materials that could be sources of stormwater pollutants, as discussed below.
>
> ~~Pier 80 and Piers 30-32 would be used as a team base.~~ As discussed in Section 5.16.1.1, Surface Water Hydrology and Stormwater Drainage, Pier 80 has a separate stormwater

> drainage system that is comprised of four separate drainage areas, and a small portion of this pier drains to the City's combined sewer system. Pier 19 and Piers 30-32 currently drain directly to the Bay. Boat maintenance activities, the outside storage of heavy equipment, and the use of hazardous materials associated with the team base and boat maintenance activities could be potential sources of stormwater pollutants discharged to these storm sewer systems.
>
> However, the project sponsor would implement practices at Pier 19, at the team bases at both locations, and at the fabrication and assembly facilities at Pier 80 to promote recycling of materials and use of environmentally friendly products and procedures, such as limiting the use of diesel powered equipment, using equipment powered with electricity or alternative fuels rather than diesel, and using environmentally friendly alternatives to industrial solvents and other maintenance chemicals. Further, the AC-45 and AC-72 sailboats and their assemblage work would not involve the use of hazardous material such as gasoline, diesel, lube oil, or any petroleum products. Large areas of the boats would not be spray painted at the team bases. Minor touch-up painting would be done within a work area tent and the 1- or 5-gallon pails of paint would be stored in team containers at each team base. In addition, the team base activities at Pier 80 and Piers 30-32 would take place in the summer months when rainfall does not typically occur in the Bay Area. During the winter months of 2012 to 2013, some boats may be stored under tents at the team bases. However, no boat assembly or repair work would take place during this time, and all tools, repair parts, and paint materials would be securely stored inside the team containers or the team support modules, which would be covered.

The following text is added after the first partial paragraph on EIR page 5.16-73 to provide information regarding boat washing activities at the team bases (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> During the AC34 events, boat washing would take place on Pier 80 and Piers 30-32. Each site would be provided with two common wash areas, each approximately 80 feet in diameter with rubber or plastic containment dikes. The wash water, estimated at about 200 gallons per wash, would be fully contained within the dikes and drained to a low point or a sump. The wash water would be disposed of using a truck mounted package treatment unit that treats and stores the wash water for reuse or a standby suction truck that vacuums the wash water into a tank for offsite disposal at a designated wastewater treatment plant. Either disposal method would completely contain and remove the wash water without discharging the water to the Bay or the storm or sanitary sewer system.

The fourth paragraph on EIR page 5.16-73 is revised as follows to reflect the addition of limited boat maintenance activities at Pier 19 (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> The project sponsor would also be required to obtain coverage under the Industrial General Stormwater Permit described in Section 5.16.2.2, State Regulations, depending on the

> specific activities conducted at the team bases and boat maintenance facilities at Pier 19. In accordance with this permit, the project sponsor would also be required to prepare and implement a SWPPP identifying sources of pollutants and the means to manage these sources to reduce stormwater pollution.

The last paragraph on EIR page 5.16-73 (continuing on to EIR page 5.16-74) is revised as follows to reflect the applicability of the Industrial General Stormwater Permit outside of the rainy season (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> Incorporation of safe handling methods planned as part of the project, compliance with the San Francisco Health Code, and implementation of control measures required for compliance with the San Francisco Stormwater Management Ordinance (as specified in the Stormwater Design Guidelines), and compliance with the Industrial General Stormwater Permit, impacts related to additional sources of stormwater pollutants would be *less than significant*~~, even if the team base were to remain in place between the AC34 2012 and 2013 events~~.

The above revisions do not change the analysis or conclusions presented in the EIR.

12.22.12 Climate Change-Induced Sea Level Rise and Future Flooding [HY-11]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-327 O-ACEC-328 O-STB-02

- Combined sewer overflow events at high tide currently result in shoreline flooding and sewer backup. In the long term, these problems will be exacerbated by rising sea levels. [O-ACEC-327]
- The EIR must project sea level changes and their resulting impacts for the life of the leases, which conclude in roughly 2080. [O-ACEC-328]
- The EIR should analyze long-term impacts on facilities due to sea level changes. It should indicate flooding risks for proposed structures, sewer and stormwater infrastructure, and associated public access. [O-STB-02]

Response HY-11

The commenters note that with future sea level rises, implementation of the long-term development projects could exacerbate shoreline flooding and sewer backup issues that result when the CSO outfalls are inundated during storm surges at the existing sea level. However, as discussed on EIR page 5.16-85, most of the long-term development sites are located within the Port jurisdiction MS4, which allows stormwater to drain directly into the Bay. Therefore, there would be no additional stormwater discharges from these facilities that would contribute to combined sewer overflows. Although there could be some increase in sanitary sewage discharges as a result of this new development, in accordance with the Port's Building Code Chapter 13C, the long-term development projects would be required to incorporate plumbing fixtures to reduce the amount of wastewater generated by 20 percent relative to the existing requirements of the California Building Code through the use of water-conserving features or non-potable water systems. (See Section 5.18, Mineral and Energy Resources, EIR page 5.18-20 for a discussion of these requirements.)

Because the long-term development projects would comply with regulatory requirements for reduction in wastewater production and other future development projects in San Francisco would also be required to comply with these requirements, and because the Sewer System Improvement Program anticipates long-term development within San Francisco pursuant to existing land use controls that require a reduction in wastewater flows, the long-term development projects would not substantially exacerbate flooding and sewer backup issues during storm surges as the sea level continues to rise. No additional analysis of this issue is required in the EIR.

The range of sea level rise is discussed on EIR page 5.16-26, which states that "Consistent with the December 2009 Proceedings of the National Academy of Sciences, the State Coastal Conservancy and State Lands Commission have adopted, and the Governor of California's Delta Vision Blue Ribbon Task Force Independent Science Board has recommended, a projected sea level rise of 55 inches (4.6 feet) by 2100 for planning purposes. The State Coastal Conservancy and the State Lands Commission have also adopted a policy of using 16 inches (1.3 feet) of sea level rise by 2050." A map of potential flooding areas under existing conditions and both sea level rise scenarios is provided in Figure 5.16-9 on page 5.16-29 of the EIR.

As discussed on EIR page 5.16-58, the AC34 events are proposed to take place in the summer and fall of 2012 and 2013, and no impacts related to future flooding risks due to climate change-induced sea level rise would occur within the time frame of these events. The design of water and sewer infrastructure improvements constructed at Piers 30-32 and Pier 80, described in Chapter 3 of the Draft EIR and in Chapter 11, would conform to appropriate building code requirements and would take into consideration the potential for future sea level rise.

Flooding risks to the cruise terminal at Piers 27-29 are discussed on EIR page 5.15-82. As stated there, Pier 27 (with a deck elevation of 11.9 feet NAVD88) is above the projected 100-year flood elevation of 10.5 feet in 2050 but would be inundated at the 100-year flood elevation of 13.8 feet NAVD88 in 2100, exposing the area to flooding hazards. Further, when wave action is considered, total water levels would be as high as 17.7 feet NAVD88 by 2100, thereby exposing the area to additional wave hazards. Although Pier 27 is located in an area that could be subject to a 100-year flood by 2100, based on accepted projections discussed in the setting section, approximately 2.3 feet of the sea level rise would occur after 2070, and therefore Pier 27 would not likely be subject to 100-year flooding within the planning horizon of the proposed project. Although flooding could occur during the life span of the cruise terminal, the degree of flooding that could occur is speculative given the unknowns in projecting sea level rise beyond the year 2050. Therefore, the Port would include adaptive strategies in the project design that would allow the Port to construct retroactive protective features such as a sea wall to prevent inundation due to future sea level rise if needed. Planning for these adaptive features in the initial design, and incorporation of these features at a later date when the degree of sea level rise is more certain, would allow for better protection against sea level rise, without a large potential for over-design. Therefore, impacts related to exposure of people and structures to a significant risk of loss, injury, or death involving inundation as a result of climate change-induced sea level rise would be less than significant.

As discussed on EIR page 5.16-84, the EIR analyzes the long-term development projects to be implemented pursuant to the Host Agreement at a conceptual level and these projects will be subject to their own separate CEQA review and permitting processes, as applicable. Accordingly, the EIR concludes on page 5.16-86 that the long-term development projects (including associated infrastructure) would conform to building codes and requirements applicable at the time of design, including any restrictions applicable to sea level rise, which would ensure that impacts related to sea level rise would be less than significant at a conceptual level. Further, as stated on EIR page 5.16-26, projections of sea level rise beyond 2050 are speculative. Although the specific nature and extent of any potential impact would depend on the specific design and timing of the project, the future CEQA documents prepared for the long-term development projects would include more specifics about design features included to address impacts related to sea level rise.

Although flooding as a result of climate change-induced sea level rise could potentially affect public access to the Bay, this would not be an impact of the proposed project and does not require evaluation in the EIR. No additional discussion of impacts related to future flooding risk associated with climate change-induced sea level rise is necessary for the EIR.

12.22.13 Use of Regulations and Plans in Impact Analyses [HY-12]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

O-NRDC-20

- The EIR should provide details and performance standards for water quality mitigation measures instead of deferring details to future plans such as the Storm Water Pollution Prevention Plans. [O-NRDC-20]

Response HY-12

Section 15126.4(a)(1)(B) of the CEQA Guidelines states that formulation of mitigation measures should not be deferred to some future time, but that mitigation measures may provide performance standards that would mitigate the significant effect of a project and that may be accomplished in more than one specified way. While the impact analysis presented in Section 5.16, Hydrology and Water Quality, relies on implementation of several plans to ensure that impacts related to hydrology and water quality are less than significant, this does not represent deferred mitigation because performance criteria are provided in all cases.

Implementation of Storm Water Pollution Prevention Plans in accordance with the Construction General Stormwater Permit would ensure that water quality impacts associated with construction and demolition (Impact HY-1) are less than significant because these plans would be subject to review by the RWQCB as part of the permit approval process as discussed on EIR page 5.16-60. Further, the EIR text provides examples of best management practices that could be implemented. The RWQCB would have the authority to require inclusion of all necessary water quality protection measures prior to granting coverage under the Construction General Stormwater Permit, which is required before AC34 construction activities can start.

Similarly, the project sponsor would be required to comply with Section 10, Section 401, and BCDC permit requirements for dredging and in-water construction activities (Impact HY-1), which are also required before construction activities can begin, and would implement Mitigation Measure M-HY-1 (Water Quality Best Management Practices) to ensure that water quality impacts related to dredging and in-water construction activities are less than significant as discussed on EIR pages 5.16-61 through 5.16-64. While implementation of this measure includes the preparation of a Spill Prevention, Control, and Countermeasure Plan and Materials Management Disposal Plan, the Materials Management Disposal Plan would also be subject to approval by the RWQCB and the RWQCB would have the authority to require all necessary water quality protection measures before the plan is approved prior to the start of construction. Further, Mitigation Measure M-HY-1 provides examples of water quality protection measures that would be included in the Spill Prevention, Control, and Countermeasure Plan and Materials Management Disposal Plan. Specifically, the Spill Prevention, Control, and Countermeasure Plan would include methods to address the emergency cleanup of hazardous materials spills, emergency planning requirements, and measures to prevent spills to the Bay during fueling. The Materials Management Disposal Plan would specify measures to prevent debris from falling into the Bay during construction to the maximum extent practicable. Such measures include mooring a barge in a position to capture and contain the debris generated during any sub-structure or in-water work; preventing the discharge of fresh cement or concrete to the Bay; proper on-land disposal of construction wastes; on-land storage of hazardous materials in appropriate containers with adequate containment; appropriate removal of all construction materials, waste, debris, sediment, rubbish, and trash; covering construction materials at night; reducing the amount of disturbance within the project area to the minimum necessary to accomplish the project; and preventing saw water from entering the Bay.

As discussed on EIR page 5.16-73, a Stormwater Control Plan would also be prepared for stormwater management at the team bases at Piers 30-32 in accordance with the San Francisco Stormwater Design Guidelines. The plan would specify best management practices to capture and treat (1) the flow of stormwater runoff resulting from a rain event equal to at least 0.2 inch per hour of intensity, or (2) 80 percent or more of the annual stormwater runoff volume, determined from design rainfall capture curves for San Francisco. The EIR provides examples of best management practices such as rain gardens in the streetscape, aboveground planters for biofiltration, or separators or media filters to remove stormwater pollutants that may be included. Because the Stormwater Control Plan would be subject to approval by the Port, the SFPUC, and the San Francisco Planning Department as a condition of project approval to certify that the performance measures of the San Francisco Stormwater Design Guidelines are met, water quality impacts related to changes in stormwater flows would be less than significant and no mitigation would be required.

Operation of the team bases and boat maintenance activities at Pier 19 (Impact HY-2) would also require implementation of a Storm Water Pollution Prevention Plan in accordance with the Industrial General Stormwater Permit as discussed on EIR pages 5.16-68 and 5.16-5.16-73. The RWQCB would have the authority to require all necessary water quality protection measures prior to granting coverage under the Industrial General Stormwater Permit that would be required before these facilities could be operated.

See Responses HY-7, HY-8, HY-9a, HY-9c, and HY-9d regarding preparation and review of the visiting mariners information in accordance with Mitigation Measure M-BI-12 and Response HY-9e regarding preparation of a Waste Management Plan to address impacts associated with littering.

In response to this comment, the following text is added after the first incomplete sentence on EIR page 5.16-53 (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> sediment control and pollution prevention measures during construction. In the Port jurisdiction, the Stormwater Control Plan is subject to approval by the Port, SFPUC, and Planning Department as a condition of project approval to certify that the performance measures of the Stormwater Design Guidelines are met. The project would require a Stormwater Control Plan.

In response to this comment, the following edits are made to the first sentence following the bulleted list on EIR page 5.16-72 (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> The MMDP shall be submitted to the RWQCB for review and approval prior to beginning construction.

In response to this comment, the third paragraph on EIR page 5.16-73 is revised as follows (see Response HY-10a for an explanation of other revisions to this paragraph) (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> ~~In addition, the AC34 events would be conducted during the dry season when no stormwater runoff would be generated.~~ Further, in accordance with the Stormwater Design Guidelines discussed in Section 5.16.2.3, Local Regulations, the project sponsor would be required to prepare and implement a Stormwater Control Plan identifying how the stormwater discharges would be treated to ~~comply with~~ meet the performance measures of the San Francisco Stormwater Design Guidelines discussed in Section 5.16.2.3, Local Regulations (which require capture and treatment of [1] the flow of stormwater runoff resulting from a rain event equal to at least 0.2 inch per hour of intensity, or [2] 80 percent or more of the annual stormwater runoff volume, determined from design rainfall capture curves for San Francisco) ~~Stormwater Management Ordinance~~, and specifying BMPs for the

treatment of stormwater discharges. Such BMPs may include features such as rain gardens in the streetscape, aboveground planters for biofiltration, or separators or media filters to remove stormwater pollutants. The Stormwater Control Plan would be subject to approval by the Port, SFPUC, and Planning Department as a condition of project approval to certify that the performance measures of the Stormwater Design Guidelines are met.

The above revisions do not change the analysis or conclusions presented in the EIR.

12.22.14 Under-Pier Infrastructure [HY-13]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-RWQCB-07	O-ACEC-267

- The EIR should assess any impacts associated with under-pier infrastructure. The EIR should disclose which under-pier infrastructure would be upgraded prior to race events. [A-RWQCB-07]
- The EIR should indicate if new water and sewage utilities could exacerbate the existing poor condition of surrounding infrastructure and discharge chlorinated water or sewage to the Bay. The condition of existing infrastructure should be accurately characterized. [O-ACEC-267]

Response HY-13

Planned upgrades to the water and sewer infrastructure at Piers 30-32 and Pier 80 are described in Chapter 3 of the Draft EIR and Chapter 11, and impacts related to the construction of these upgrades are addressed in the appropriate topical analyses in Chapter 5 of the EIR. The proposed upgrades would be designed to accommodate forecasted water and wastewater capacities, and would therefore not lead to discharges of potable water or sewage.

The capacity and condition of the existing utilities at Piers 30-32 and Pier 80 were evaluated as part of the 401 water quality certification process.[1,2] As noted in the utility descriptions, the team bases at Piers 30-32 would eventually tie into an existing 4-inch force main. A condition assessment previously conducted by the Port rated the existing force main with a score 4 (5 to 10 years remaining life). A visual inspection by the Port's plumbing supervisor determined that the pipe was intact but required additional support hangers, and new hangers would be installed as part of the AC34 improvements. The section of force main in question is not being replaced at this time for the following reasons:

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[1] Port of San Francisco, Application for 401 Water Quality Certification, 34th America's Cup Races, Pier 80 – Water and Sewer Utilities, Piers 30-32, and Piers 27-29, October 11, 2011.

[2] Port of San Francisco, email from Ann Carey to Xavier Fernandes, Regional Water Quality Control Board, Subject: AC Piers Supplemental Information, October 17, 2011.

1) The existing pipe and capacity are adequate for the planned utilization during the AC34 events.

2) Under the long-term development agreement, the America's Cup Event Authority has 5 years to determine the subsequent use of the pier, and until that use is defined, it is premature to replace and/or install new utilities, as the proposed use should drive the utility design. The estimated remaining useful life (5 to 10 years) covers that period.

3) Depending on the proposed use, the Port may require the developer to utilize innovative and/or state-of-the-art technologies for water and sewer services (including bringing pipes above deck or placing them in a chase[3] protected from the open water and accessible from above-deck), that may help reduce exposure in the marine environment and prevent damage and/or leaks. If the force main were replaced now, it would most likely be replaced in-kind, potentially foreclosing a possible future improvement at these piers.

At Pier 80, the project sponsor has determined that the existing infrastructure has sufficient capacity for potable water and wastewater demands, and that only minor maintenance of the sewage pumps would be required for operation of the team bases at this pier.

No water or sewer services would be required at Pier 29 for the AC34 events. Instead, food vendors would prepare all food offsite and would be completely self-contained while on the pier. Food vendors would be instructed to bring their own water to meet their daily needs, similar to the self-contained food trucks that operate in front of the Ferry Building and other locations throughout the city. Temporary self-contained port-a-potties would be used to provide restroom services, and therefore no sewer connections are required. The Port's recent under-pier utility assessment assigned a condition score of 5 to Pier 29 (0-5 years estimated remaining service life), but indicated that no leaks were detected during the inspection. Given the current utilization of Pier 29 primarily for storage and parking, and the proposed reliance on portable water and port-a-potties for the AC Village, the Port is investigating capping off the water supply to prevent potential leaks of potable water or wastewater. The post-AC34 utilization of Pier 29 has not been determined, but the Host Agreement assumes it will revert to current use. If and when the Port enters into a development agreement for this pier, a thorough review of utility needs will be made.

This information and rationale related to improvements to the existing utilities at the Port of San Francisco are addressed in the 401 water quality certification process being undertaken by the project sponsors, and no further analysis is required in the EIR.

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[3] A chase is a framed enclosed space around a flue pipe or a channel in a wall, or through a ceiling for something to lie in or pass through.

12.22.15 Bay Fill [HY-14]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

O-ACEC-326

- In Impact HY-9, every location identified for potential fill removal is outside of the BCDC Special Area Plan. Sites within the boundaries must be included. [O-ACEC-326]

Response HY-14

EIR pages 5.16-83 and 5.16-84 discuss water quality impacts related to fill removal, and this analysis is not specific to the fill removal locations. Refer to Section 12.5, Plans and Policies, regarding amendments to the BCDC Special Area Plan.

12.22.16 Cumulative Impact Analysis [HY-15]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

O-WW-55

- The EIR incorrectly assumes that because impacts of each project component would be reduced to less than significant by Mitigation Measure M-HY-1, the cumulative impacts of these components would be less than significant. [O-WW-55]

Response HY-15

In accordance with CEQA Guidelines Section 15064(h)(1), a project's contribution to a cumulative impact would be cumulatively considerable if the incremental effects of the project are significant when viewed in connection with the past, present, and probable future projects. Construction-related water quality effects associated with the AC34 events and cruise terminal would not be cumulatively considerable because compliance with existing regulations and Mitigation Measure M-HY-1 would ensure that water quality degradation would not occur as a result of project activities.

In response to this comment, the first paragraph on EIR page 5.16-87 is revised as follows to clarify why the AC34 construction activities would not make a cumulatively considerable contribution to cumulative water quality impacts (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> …considerable because water quality impacts related to these activities would be temporary and the project sponsor would implement water quality control measures required for compliance with existing regulations and with implementation of **Mitigation**

> **Measure M-HY-1** (Water Quality Best Management Practices), which would ensure that adverse water quality effects would not result from AC34 construction activities, as discussed in Impact HY-1.

In response to this comment, the fourth paragraph on EIR page 5.16-87 is revised as follows to clarify why construction activities for the cruise terminal would not make a cumulatively considerable contribution to cumulative water quality impacts (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> The proposed project could result in adverse water quality effects related to construction activities above and adjacent to the Bay. Other projects listed in Table 5.1-1 such as the Pier 36/Brannan Street Wharf project and Pier 15 to 17 Exploratorium Relocation Project could also involve similar activities that could affect water quality in San Francisco Bay, resulting in a potential cumulative impact. However, the project's contribution to this cumulative impact would not be cumulatively considerable with implementation of water quality measures required for compliance with existing regulations, which would ensure that adverse water quality effects would not result from construction activities for the cruise terminal, as discussed in Impact HY-5.

The above revisions do not change the analysis or conclusions presented in the EIR.

12.23 Hazards and Hazardous Materials

12.23.1 Overview of Comments on Hazards and Hazardous Materials

The comments and corresponding responses in this section cover topics in Chapter 5, Section 5.17, of the EIR. These include topics related to:

- HZ-1, Exposure to Hazardous Materials
- HZ-2, Management of Treated Wood Waste
- HZ-3, Fueling
- HZ-4, Use of Regulations and Plans in Impact Analyses
- HZ-5, Cumulative Impact Analysis
- HZ-6, Concurrence with Comments of Others

12.23.2 Exposure to Hazardous Materials [HZ-1]

This topic is further subdivided into the following sub-topics:

- HZ-1a, Regulatory Oversight Agency
- HZ-1b, Adequacy of Project Description
- HZ-1c, Applicability of Risk Assessment, Demolition
- HZ-1d, Applicability of Risk Assessment, Construction Activities
- HZ-1e, Mitigation for Hazardous Building Materials

HZ-1a, Regulatory Oversight Agency - Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

A-DTSC-02

- The project sponsor would need to submit an application for assignment of a regulatory oversight agency to the DTSC or RWQCB for the investigation or cleanup of a brownfield contaminated site. [A-DTSC-02]

Response HZ-1a

As noted on EIR pages 5.17-14 and 5.17-15, there is a low potential to encounter hazardous materials in the soil during construction activities for AC34 because all work at the Port of San Francisco facilities (including the team bases at Piers 30-32 and Pier 80 and at the America's Cup Village at Piers 27-29) would occur on existing piers, and only temporary surface facilities (such as tents and bleachers) would be constructed at the remaining project sites, including the America's Cup Village at Marina Green and spectator venues in San Francisco and on NPS lands. However, construction work at the team bases at Piers 30-32 and Pier 80 and the America's Cup

Village at Piers 27-29 in 2013 would be conducted in areas that are bayward of the historic high tide line, and if construction at any of these sites disturbed 50 cubic yards or more of soil, the project sponsor would be required to implement Article 22A of the San Francisco Health Code. In accordance with this article, the project sponsor would prepare a site history report, conduct soils testing, prepare a soils analysis report, and if appropriate, prepare a Site Mitigation Plan and certification report. In addition, the San Francisco Department of Public Health (DPH) could impose the requirements of Article 22A for sites that are not located bayward of the high tide line if contamination is suspected. The site history report would be submitted to the California Department of Toxic Substances Control (DTSC) and Regional Water Quality Control Board (RWQCB) as well as the DPH. If contamination is identified during implementation of these Article 22A requirements, the project sponsor would submit an application for assignment of a regulatory oversight agency to the DTSC or RWQCB, if appropriate.

In response to this comment, the second paragraph on EIR page 5.17-15 is revised as follows to address assignment of a regulatory oversight agency (see Response HZ-1d for an explanation of other revisions made to this paragraph) (new text is underlined):

> However, construction work at the team bases at Piers 30-32 and Pier 80 and the America's Cup Village at Piers 27-29 in 2013) would be conducted in areas that are bayward of the historic high tide line. If construction at any of these sites disturbed 50 cubic yards or more of soil, the project sponsor would be required to implement Article 22A of the San Francisco Health Code. In accordance with this article, the project sponsor would prepare a site history report, conduct soils testing, prepare a soils analysis report and if appropriate, prepare a Site Mitigation Plan and certification report. If the presence of hazardous materials were indicated, a site health and safety plan would also be required, and an application for assignment of a regulatory oversight agency would be submitted to the DTSC or RWQCB, if appropriate. The soil analysis report would be submitted to the DPH and other involved agencies including the DTSC and RWQCB, and if required on the basis of the soil analysis report, a site mitigation plan would be prepared to (1) assess potential environmental and health and safety risks (including a health risk analysis if necessary); (2) recommend cleanup levels and mitigation measures, if any are necessary, that would be protective of workers and visitors to the property; (3) recommend measures to mitigate the risks identified; (4) identify appropriate waste disposal and handling requirements; and (5) present criteria for onsite reuse of soil. If required, the recommended measures would be completed during construction. Upon completion, a certification report would be required stating that all mitigation measures recommended in the site mitigation report have been completed and that completion of the mitigation measures has been verified through follow-up soil sampling and analysis, if required. Further, the DPH could require implementation of these same measures for other sites that are not located bayward of the high tide line if contamination is suspected.

The third paragraph on EIR page 5.17-24 is similarly revised as follows to address assignment of a regulatory oversight agency (see Response HZ-1d for an explanation of other revisions made to this paragraph) (new text is underlined):

> In general, impacts related to a release of hazardous materials during construction (Impact HZ-1) would be less than significant with implementation of the requirements of the Construction General Stormwater Permit issued by the RWQCB, and impacts related to the use of hazardous materials during operation would be *less than significant* with implementation of safety measures in compliance with Articles 21, 21A, and 22 of the San Francisco Health Code and preparation of an Operations Plan in accordance with Port of San Francisco requirements. Additionally, if more than 50 cubic yards of soil were disturbed for construction of the long-term development projects, preparation of a site history report, soils testing, preparation of a soils analysis report and if appropriate, preparation of a Site Mitigation Plan (including a health risk analysis if necessary) and certification report in compliance with Article 22A of the San Francisco Health Code (and submittal of an application for assignment of a regulatory oversight agency to the DTSC or RWQCB, if appropriate) would ensure that impacts related to exposure to hazardous materials in soil would be less than significant, as described above under Impact HZ-2. Additionally, if the approved the Site Mitigation Plan includes leaving hazardous materials in soil or the groundwater with containment measures such as landscaping or a cap to prevent exposure to hazardous materials, the project sponsor would ensure the preparation of a risk management plan, health and safety plan, and possibly a cap maintenance plan in accordance with DPH requirements. These plans would specify how unsafe exposure to hazardous materials left in place would be prevented, as well as safe procedures for handling hazardous materials should site disturbance be required. The DPH could require a deed notice, and the requirements of these plans would transfer to the new property owners in the event that the property was sold.

The above revisions do not change the analysis or conclusions presented in the EIR.

HZ-1b, Adequacy of Project Description - Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

O-ArcEco2-02

- The EIR is deficient because it does not provide an accurate, finite, or stable project description regarding hazards and hazardous materials. Maps and figures showing the locations where hazardous materials are located should be provided to assist the reader with a means of gauging the degree to which hazardous materials affect the project and the scope of required mitigation. The table in Section 3 of Appendix AQ states there will be demolition of a building at Pier 30-32 and this was not identified in the hazards section. [O-ArcEco2-02]

Response HZ-1b

The hazards and hazardous materials impact analysis is based on the project that is described in Chapter 3, Project Description, of the EIR. See Section 12.4, Response PD-1 for discussion of why the project description is adequate and in full compliance with CEQA.

As described in Section 5.17, Hazards and Hazardous Materials, the public and environment could be exposed to hazardous materials as a result of implementation of AC34 because of relocation of tenants that use hazardous materials (Impact HZ-1), a release of hazardous materials during construction (Impact HZ-1), use of hazardous materials during AC34 race events (Impact HZ-1), excavation at sites with contaminated soil (Impact HZ-2), and demolition of buildings that contain hazardous building materials and removal of creosote-treated pilings and structures (Impact HZ-3). The text of the impact analyses describes where these potential impacts could occur, and figures showing the location of each project component are included in Chapter 3, Project Description. No additional maps, pictures, or tables are needed to show where these impacts could occur.

Note that while removal of floating docks is planned at various locations throughout the project area, removal of these is not addressed in Section 5.17, Hazards and Hazardous Materials, because these docks would be installed as part of the project, would be of recent construction, and would not include hazardous building materials, such as lead-based paint, asbestos-containing materials, creosote-treated materials, or equipment containing PCBs, DEHP, or mercury.

Regarding the apparent discrepancy between Section 3 of Appendix AQ and the hazards section of the EIR, the only AC34 project site undergoing major renovation other than Piers 27-29 is Piers 30-32, which would undergo seismic upgrades and repairs as discussed on EIR page 3-43 in Chapter 3, Project Description. As part of these activities, portions of the deck, soffit, piles, and rusted or broken reinforcing steel would be replaced as needed. As stated in Chapter 5, Section 5.8, Air Quality, page 5.8-20, exhaust emissions were estimated by collecting information about the types of air emissions involved in each construction activity during each phase of construction (including demolition). To provide a conservative analysis, deck removal activities that would be conducted at Piers 30-32 were characterized as "building demolition" in the air quality analysis to ensure that the exhaust emissions related to the removal activities were adequately accounted for. However, this conservative assumption was not applicable for the hazards section because the seismic upgrades and repairs would not disturb hazardous building materials.

HZ-1c, Applicability of Risk Assessment, Demolition - Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

O-ArcEco2-05

- The lack of a health risk assessment for exposure to pollutants as a result of demolition and construction activities is disturbing. [O-ArcEco2-05]

Response HZ-1c

As discussed in Impact HZ-3 (EIR page 5.17-16), hazardous building materials including lead-based paint, asbestos-containing materials, and equipment containing PCBs, DEHP, or mercury could be encountered during demolition of the Pier 27 shed, Pier 27 Annex office building, and

Pier 29 shed. In addition, creosote-treated piles would be removed from the Rincon Point Open Water Basin, as discussed on EIR page 5.17-16; and from Pier 98; Piers 84 and 88; Pier 70; Pier 64; Wharves 6, 7, and 8; and adjacent to China Basin Channel as described on EIR page 5.17-22.

Demolition activities would not expose the public to potential health risks from exposure to asbestos-containing materials or lead-based paint because abatement of asbestos-containing materials in accordance with BAAQMD requirements (Section 19827.5 of the California Health and Safety Code) and lead-based paint in accordance with CCSF requirements (Section 3425 of the San Francisco Building Code) would require the abatement contractor to provide containment barriers to prevent the offsite migration of contaminants. Further, Cal-OSHA regulations have established permissible exposure levels for both asbestos and lead that are protective of worker health and safety during occupational exposures to these contaminants. Because of this, and because all hazardous building materials would be abated prior to or as part of demolition which would eliminate the potential exposure of the public to hazardous building materials, a risk assessment is not required to assess potential health risks due to exposure to asbestos-containing materials or lead-based paint.

Demolition activities would not expose the public to potential health risks due to removal and disposal of equipment containing PCBs, DEHP, or mercury because, as specified in Mitigation Measure M-HZ-3, these materials would be identified prior to demolition and handled in accordance with applicable regulations, which require appropriate handling of these materials and disposal at a permitted facility. This measure would prevent a release of PCBs, DEHP, or mercury as a result of removal and disposal of equipment containing these materials.

Removal of creosote-treated wood would not expose the public to potential health risks due to exposure to creosote because the treated wood would be appropriately stored, managed, and disposed of in accordance with the DTSC's Alternative Management Standards for Treated Wood, which would require that the treated wood not be burned, scavenged, or stored in contact with the land.

Therefore, because implementation of existing regulatory requirements would prevent exposure of the public to hazardous materials building materials, a risk assessment is not required for demolition activities.

To clarify regulatory requirements applicable to abatement of hazardous building materials and how they would be implemented to reduce impacts from exposure to hazardous materials, the last paragraph on EIR page 5.17-5, continuing on to page 5.17-6, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. The BAAQMD is vested by the California legislature with authority to regulate airborne pollutants, including asbestos~~,~~. BAAQMD regulations pertaining to abatement of asbestos-containing materials are specified in Regulation 11,

> Hazardous Pollutants, Rule 2, Asbestos Demolition, Renovation and Manufacture. In accordance with this regulation, the BAAQMD ~~through both inspection and law enforcement, and~~ is to be notified 10 days in advance of any proposed demolition or abatement work. Notification includes the names and addresses of operations and persons responsible; description and location of the structure to be demolished or altered, including size, age, and prior use, and the approximate amount of friable asbestos; scheduled starting and completion dates of demolition or abatement; nature of planned work and methods to be employed; procedures to be employed to meet BAAQMD requirements; and the name and location of the waste disposal site to be used. In accordance with this regulation, a survey must be conducted to identify asbestos-containing materials prior to demolition. Containment must be provided during work that disturbs asbestos-containing materials, and there must be no visible emissions to the outside air from demolition operations that involve asbestos-containing materials. The contractor must use methods specified in the regulations for control of emissions, such as wetting of exposed asbestos-containing materials; use of a HEPA exhaust, ventilation, and control system; or removal in an entirely contained chute. In addition asbestos-containing materials must be removed prior to demolition and the work site must be cleaned of asbestos-containing materials. The BAAQMD randomly inspects asbestos removal operations~~. In addition, the BAAQMD~~ and will inspect any removal operation when a complaint has been received.

To clarify the discussion regarding regulatory requirements for the abatement of asbestos-containing materials and lead-based paint, the next-to-last paragraph on EIR page 5.17-16 is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> As discussed in Section 5.17.2, Regulatory Framework, there is a well-established regulatory framework for the abatement of asbestos-containing materials and lead-based paint. Abatement of asbestos-containing materials~~,~~ must be conducted in accordance with BAAQMD Regulation 11, Hazardous Pollutants, Rule 2, Asbestos Demolition, Renovation and Manufacture, which requires that a survey be conducted to identify asbestos-containing materials prior to demolition. In addition, containment must be provided during work that disturbs asbestos-containing materials, and there must be no visible emissions to the outside air from demolition operations that involve asbestos-containing materials. The contractor must use methods specified in the regulations for control of emissions, such as wetting of exposed asbestos-containing materials; use of a HEPA exhaust, ventilation, and control system; or removal in an entirely contained chute. In addition asbestos-containing materials must be removed prior to demolition and the work site must be cleaned of asbestos-containing materials. ~~is addressed in Section 19827.5 of the California Health and Safety Code, which requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. The BAAQMD is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and is to be notified 10 days in advance of any proposed demolition or abatement work.~~ Further, asbestos abatement contractors must follow state regulations contained in 8 CCR 1529 and 8 CCR 341.6 through

> 341.14 where there is asbestos-related work involving 100 square feet or more of asbestos-containing materials.

The above revisions do not change the analysis or conclusions presented in the EIR.

HZ-1d, Applicability of Health Risk Assessment, Construction Activities - Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

> O-ArcEco2-05

- The lack of a health risk assessment for exposure to pollutants as a result of demolition and construction activities is disturbing. [O-ArcEco2-05]

Response HZ-1d

As discussed above under Response HZ-1a, there is a low potential to encounter hazardous materials in the soil. However, the locations where excavation could occur (Piers 27-29, Piers 30-32, and Pier 80) are bayward of the historic high tide line and construction activities at these sites would be required to comply with Article 22A of the San Francisco Health Code if they involved the excavation of 50 cubic yards or more of soil. Further, the DPH could impose the requirements of Article 22A at San Francisco sites that are not bayward of the high tide line if contamination is suspected. As discussed on EIR page 5.17-15, compliance with these regulatory requirements would include preparation of a site history report, implementation of soils testing, preparation of a soils analysis report and if appropriate, preparation of a Site Mitigation Plan and certification report. If the presence of hazardous materials were indicated, a site health and safety plan would also be required. The Site Mitigation Plan, if determined necessary by the DPH and involved regulatory agencies, would include a health risk analysis at the appropriate level of detail to identify cleanup requirements for the site.

In response to this comment, the second paragraph on EIR page 5.17-15 is revised as follows to address the requirement for a risk assessment under Article 22A of the San Francisco Health Code, if necessary (see Response HZ-1a for an explanation of other revisions made to this paragraph) (new text is underlined):

> However, construction work at the team bases at Piers 30-32 and Pier 80 and the America's Cup Village at Piers 27-29 in 2013) would be conducted in areas that are bayward of the historic high tide line. If construction at any of these sites disturbed 50 cubic yards or more of soil, the project sponsor would be required to implement Article 22A of the San Francisco Health Code. In accordance with this article, the project sponsor would prepare a site history report, conduct soils testing, prepare a soils analysis report and if appropriate, prepare a Site Mitigation Plan and certification report. If the presence of hazardous materials were indicated, a site health and safety plan would also be required, and an application for assignment of a regulatory oversight agency would be submitted to the

> DTSC or RWQCB, if appropriate. The soil analysis report would be submitted to the DPH and other involved agencies including the DTSC and RWQCB, and if required on the basis of the soil analysis report, a site mitigation plan would be prepared to (1) assess potential environmental and health and safety risks (including a health risk analysis if necessary); (2) recommend cleanup levels and mitigation measures, if any are necessary, that would be protective of workers and visitors to the property; (3) recommend measures to mitigate the risks identified; (4) identify appropriate waste disposal and handling requirements; and (5) present criteria for onsite reuse of soil. If required, the recommended measures would be completed during construction. Upon completion, a certification report would be required stating that all mitigation measures recommended in the site mitigation report have been completed and that completion of the mitigation measures has been verified through follow-up soil sampling and analysis, if required. Further, the DPH could require implementation of these same measures for other sites that are not located bayward of the high tide line if contamination is suspected.

The third paragraph on EIR page 5.17-24 is similarly revised as follows to address the requirement for a risk assessment under Article 22A of the San Francisco Health Code, if necessary (see Response HZ-1a for an explanation of other revisions made to this paragraph) (new text is underlined):

> In general, impacts related to a release of hazardous materials during construction (Impact HZ-1) would be less than significant with implementation of the requirements of the Construction General Stormwater Permit issued by the RWQCB, and impacts related to the use of hazardous materials during operation would be *less than significant* with implementation of safety measures in compliance with Articles 21, 21A, and 22 of the San Francisco Health Code and preparation of an Operations Plan in accordance with Port of San Francisco requirements. Additionally, if more than 50 cubic yards of soil were disturbed for construction of the long-term development projects, preparation of a site history report, soils testing, preparation of a soils analysis report and if appropriate, preparation of a Site Mitigation Plan (including a health risk analysis if necessary) and certification report in compliance with Article 22A of the San Francisco Health Code (and submittal of an application for assignment of a regulatory oversight agency to the DTSC or RWQCB, if appropriate) would ensure that impacts related to exposure to hazardous materials in soil would be less than significant, as described above under Impact HZ-2. Additionally, if the approved the Site Mitigation Plan includes leaving hazardous materials in soil or the groundwater with containment measures such as landscaping or a cap to prevent exposure to hazardous materials, the project sponsor would ensure the preparation of a risk management plan, health and safety plan, and possibly a cap maintenance plan in accordance with DPH requirements. These plans would specify how unsafe exposure to hazardous materials left in place would be prevented, as well as safe procedures for handling hazardous materials should site disturbance be required. The DPH could require a deed notice, and the requirements of these plans would transfer to the new property owners in the event that the property was sold.

The above revisions do not change the analysis or conclusions presented in the EIR.

HZ-1e, Mitigation for Hazardous Building Materials - Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ArcEco2-03	O-WW-57	O-WW-58

- The commenter is pleased to see that Mitigation Measure M-HZ-3 includes the policy that "in the case where the presence of PCBs in the light ballast cannot be verified, the light ballast shall be assumed to contain PCBs and handled and disposed of as such, according to applicable laws and regulations." [O-ArcEco2-03]
- The EIR fails to identify what equipment containing PCBs, DEHP, or mercury could be encountered at Piers 27-29 and during implementation of the long-term development projects. Specific methods and regulatory requirements for removal and disposal of these materials are not identified, resulting in deferred mitigation, and there is not enough analysis to demonstrate that Mitigation Measures M-HZ-3 and M-LT-HZ would reduce impacts related to removal of equipment containing PCBs, DEHP, or mercury to less-than-significant levels. [O-WW-57, O-WW-58]

Response HZ-1e

Comment O-ArcEco2-03 concurs that it is appropriate to specify in Mitigation Measure M-HZ-3 that light ballast shall be assumed to contain PCBs if the PCB content cannot be verified and these ballast must be handled and disposed of as such, according to applicable laws and regulations. See above under Response HZ-1b regarding providing tables describing where Mitigation Measures M-HZ-3 would apply.

Regarding Comment O-WW-57, as discussed in Impact HZ-3, hazardous building materials could be encountered in the Pier 27 shed, Pier 27 Annex office building, and Pier 29 shed, which are the only buildings that would be demolished for AC34. These materials could also be encountered in buildings that could be demolished under long-term development projects as discussed on EIR page 5.17-26. The analysis of Impacts HZ-3 and HZ-7 on EIR pages 5.17-17, 5.17-21, and 5.17-22 conservatively assumes that fluorescent light ballasts containing PCBs or DEHP and fluorescent light tubes containing mercury vapors could be present in the buildings to be demolished, and that impacts related to removal of these materials would be potentially significant. Mitigation Measure M-HZ-3 requires removal and legal disposal of these materials in accordance with appropriate regulations, described in the Section 5.17.1.2, Overview of Hazardous Building Materials. This is not deferral of mitigation because the EIR commits to mitigating the impact and specifies performance criteria for the mitigation.

Regarding Comment O-WW-58: Impact LT-HZ and Mitigation Measure M-LT-HZ address hazardous materials issues related to long-term development rights provided for under the Host Agreement. As discussed further in Section 12.6, Impact Overview, Response IO-5, this impact analysis is presented at a conceptual level of detail, and any such future development plans and uses would be required to undergo separate environmental review to comply with CEQA, when site-specific development program details are proposed. Long-term development mitigation measures identified in this EIR would be reevaluated as part of project-specific CEQA review to determine their applicability and effectiveness to address any impacts identified for a site-specific development proposal, and if applicable, the measures would be reiterated, clarified to be more project-specific, or replaced with equally or more effective measures, if needed. Similar to the discussion above, this is not deferral of mitigation because the EIR commits to mitigating the impact and specifies performance criteria for the mitigation.

12.23.3 Management of Treated Wood Waste [HZ-2]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

A-DTSC-01

- Treated wood waste contains hazardous chemicals at potentially elevated levels and is subject to California's Hazardous Waste Law. The DTSC has developed alternative management standards for treated wood waste that are based upon full hazards waste requirements but are adjusted for the unique circumstances associated with treated wood waste. [A-DTSC-01]

Response HZ-2

Characterization of treated wood waste as a hazardous waste and the alternative management standards are discussed in EIR Section 5.17.2.2, State Regulations, on EIR page 5.17-6. The commenter states that EIR Section 5.17, Hazards and Hazardous Materials, identifies a potentially significant hazard that may result from demolition and removal of creosote-treated pilings, or treated wood waste. However, note that on EIR page 5.17-17, the impact analysis concludes that the impacts related to removal of creosote-treated piles would be less than significant with compliance with the DTSC's Alternative Management Standards for Treated Waste and implementation of the required procedures.

In response to this comment and to provide clarification of the Alternative Management Standards for Treated Wood Waste, the beginning of the fourth paragraph on EIR page 5.17-6 is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> Treated wood, including creosote-treated piles and structures, contains hazardous chemicals at elevated levels and can be characterized as a hazardous waste under California regulations.[1] However, the DTSC has developed alternative management

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[1] California Department of Toxic Substances Control, *Requirements for Generators of Treated Wood Waste (TWW, Fact Sheet,* December 2008.

> standards ~~that allow for disposal of~~ for treated wood ~~as a nonhazardous~~ waste~~. These standards~~, contained in Title 22 of the CCR, Division 4.5, Chapter 34, that simplify and facilitate the safe and economical disposal of treated wood waste.

The above revisions do not change the analysis or conclusions presented in the EIR.

12.23.4 Fueling [HZ-3]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

A-CDFG-04

- The operation of floating docks for refueling and support vessels can potentially result in spills leading to aquatic pollution. The Final EIR should discuss how the AC34 project would prevent oil spills and include a spill contingency plan. [A-CDFG-04]

Response HZ-3

Note that no fueling would be conducted at the floating docks. As described in Impact HZ-1 on EIR pages 5.17-13 and 5.17-4, fueling of event-related and spectator vessels would occur at the Bay Area marina facilities that are subject to local permitting requirements of the Regional Water Quality Control Board National Pollutant Discharge Elimination System (NDPES) industrial stormwater permit (SIC Code 4493) and local regulatory requirements for the storage and dispensing of fuel. As described in Chapter 3, Project Description, on EIR page 3-68, helicopters would be refueled at one or more existing regional airports. Therefore, the increased use of fuel by recreational and event vessels and helicopters would not represent an increased risk related to a release of fuel.

Impacts related to fueling of construction-related equipment are addressed in Impact HY-1 on EIR pages 5.16-59 through 5.16-61, 5.16-63, and 5.16-64. These impacts would be less than significant with compliance with the Construction General Stormwater Permit (and implementation of the required Storm Water Pollution Prevention Plan [SWPPP]) for on-land construction activities, and with implementation of Mitigation Measure HY-1, Water Quality Best Management Practices, for in-water construction activities. Preparation of a Spill Prevention, Control, and Countermeasure Plan is required by Mitigation Measure M-HY-1.

12.23.5 Use of Regulations and Plans in Impact Analyses [HZ-4]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ArcEco2-04
O-ArcEco2-06
O-WW-56

- The EIR cannot be a project-level EIR because it fails to present project-level disclosure and analysis and relies on preparation of a plan to address project impacts without providing a timeline or specifying how public input will be addressed after the EIR process is completed. [O-ArcEco2-04]
- The impact analysis relies too much on compliance with regulations and does not provide enough specifics about how the regulations would be implemented. [O-ArcEco2-06]
- Implementation of Mitigation Measure M-BI-12 does not provide analysis, performance standards, or guarantees that boats will not discharge hazardous materials. [O-WW-56]

Response HZ-4

These comments state that it is inappropriate to rely on a plan to address project impacts without providing a timeline or specifying how public input will be addressed, and that the EIR relies too much on compliance with regulations without providing detail on how the regulations would be implemented. Comment O-WW-56 specifically states that Mitigation Measure M-BI-12 does not provide analysis, performance standards, or guarantee that boats will not discharge hazardous materials.

CEQA Guidelines Section 15370 specifies that a mitigation measure should avoid an impact altogether or minimize the impact by limiting the degree or magnitude of an action or its implementation, and Section 15126.4(a)(1)(B) states that formulation of mitigation measures shall not be deferred to some future standard, but that mitigation measures may provide performance standards that would mitigate the significant effect of a project and that may be accomplished in more than one specific way. Furthermore, a mitigation condition that depends on the future formulation of a mitigation plan may be valid, provided that the lead agency recognizes the significance of the potential environmental effect, commits to mitigating the impact, and identifies specific performance criteria for the future mitigation. It should be further noted that a condition requiring compliance with environmental regulations is a common and reasonable mitigation measure.

While the impact analyses presented in Section 5.17, Hazards and Hazardous Materials, rely on implementation of several plans and regulations to ensure that impacts related to hazards and hazardous materials would be less than significant, this does not represent deferred mitigation because the analyses recognize the significance of the impact, commit to a range of alternative actions, and specify performance criteria as discussed below.

Closure Plan

Implementation of a closure plan for facilities that would undergo closure in accordance with Article 21 of the San Francisco Health Code as discussed in Impact HZ-1 on EIR pages 5.17-10 and 5.17-11 would ensure that impacts related to the relocation of tenants who use hazardous materials would be less than significant because the plan would include methods to ensure that the threat to human health and the environment from residual hazardous materials is eliminated. The plan would be subject to approval by the DPH, and this agency could also impose additional requirements for closure as a condition of approval. Further, if a release of hazardous materials were identified during closure activities, investigation and cleanup of the release would be required under the oversight of the DPH.

Zero Waste Plan and Mitigation Measure M-BI-12

Impacts related to the use of hazardous materials during AC34 events by event and spectator vessels are addressed in Impact HZ-1 on EIR pages 5.17-13 and 5.17-14. As discussed in this impact, the Zero Waste Plan (previously referred to as the Waste Management Plan) prepared for the AC34 events would address discards of hazardous wastes from vessels during the AC34 events. However, this impact was determined to be potentially significant because many boaters, including international visiting vessels, may not be familiar with U.S. regulations, and there would also be an increased burden of enforcement due to the increased number of boats during the AC34 events. Implementation of Mitigation Measure M-BI-12 (Visiting Mariners Information) would reduce this impact to a less-than-significant level as discussed below.

Mitigation Measure M-BI-12 (Visiting Mariners Information) would require the project sponsor to prepare, as part of the Water and Air Traffic Plan, information to educate boaters and marinas about environmentally sound boating practices and access to environmental services to ensure employment of clean boating habits. By reducing the regulatory enforcement burden, implementation of Mitigation Measure M-BI-12 would reduce hazardous materials impacts related to boat discards to less-than-significant levels, and no additional mitigation is required. See also Section 12.20, Response BIM-8a, and Section 12.22, Response HY-7, for further discussion of Mitigation Measure M-BI-12 and clarification to the measure made in response to comments.

Specific measures in the Zero Waste Plan that address discards of hazardous wastes from vessels include providing information to boaters about mobile bilge and sewage services as well as mobile oil change and collection services for oil waste materials at the temporary floating docks; providing information about best management practices for fueling, including use of fuel pollution prevention tools; partnering with the Coastal Commission and the California Department of Boating and Waterways to update the San Francisco Bay Area Clean Boating Map to show bilge and sewage pumpouts, as well as fueling stations; and developing outreach and educational programs to promote proper handling of hazardous wastes at marinas including signage and kiosks.

The Zero Waste Plan also specifies measures to communicate hazardous waste management issues to vessel operators, including specifying language in berthing agreements that directs boaters to properly dispose of hazardous wastes, including information about where and how to do this; working with wharf property management personnel to educate temporary berthers about clean boating practices; communicating with Shipping Agents in advance of the arrival of spectator boats to inform them about clean boating practices and hazardous waste management and disposal requirements and methodologies; and providing information regarding clean boating practices and hazardous waste disposal services on the AC34 website. The City and Event Authority would also include marina operators in San Francisco and the Bay Area as a resource for boating-related waste management tips, including mobile oil changers and hazardous waste contractors. In accordance with the Waste Management Plan, the Event Authority would also employ social media, such as Facebook and Twitter, to disseminate information related to green boating and hazardous waste prevention and management. Further, the Zero Waste Plan and Water and Air Traffic Plan (which will include a Notice to Boaters that will provide much of the Visiting Mariners Information) will be available for public review prior to finalization, providing the public with an opportunity to provide input to these plans.

Site Mitigation Plan

As discussed in Impact HZ-2 on EIR pages 5.17-14 and 5.17-15, all work at the Port of San Francisco facilities (including the team bases at Piers 30-32 and Pier 80 and the America's Cup Village at Piers 27-29) would occur on existing piers. Only temporary surface facilities (such as tents and bleachers) would be constructed at the remaining project sites, include the America's Cup Village at Marina Green and spectator venues in San Francisco and on GGNRA lands. Because construction of the AC34 venues would require limited or no soil disturbance, there is a low potential to encounter hazardous materials in the soil during construction. However, the impact analysis conservatively assumes that some project components could require excavation of 50 cubic yards or more of soil, and would need to comply with Article 22A of the San Francisco Health Code. Implementation of a Site Mitigation Plan for contaminated sites in accordance with Article 22A would ensure that impacts related to construction on a contaminated site are less than significant because this plan would be based on a site history report and soils testing performed at the site and would address (1) potential environmental and health and safety risks; (2) cleanup levels and mitigation measures, if any are necessary, that would be protective of workers and visitors to the property; (3) measures to mitigate the risks identified; (4) appropriate waste disposal and handling requirements; and (5) criteria for onsite reuse of soil. The plan would be subject to the review and approval of the DPH, and the DPH would not grant closure of the site until a certification report is provided demonstrating that all mitigation measures recommended in the site mitigation report have been completed and that completion of the mitigation measures has been verified through follow-up soil sampling and analysis, if required.

Public Safety Plan

Implementation of a Public Safety Plan to address safety and security measures is described in Impact HZ-4 on EIR pages 5.17-18 and 5.17-19. As stated there, the Public Safety Plan would address all reasonable safety and security measures (including emergency and rescue services) to protect the public, media, event-related staff, and competitors during AC34 events. The Public Safety Plan would include specific measures to ensure a high level of security within and around all elements of the event venues and within and around sensitive locations such as airports, rail, BART, and metro and bus stations. Therefore, emergency response would not be significantly affected. Please also see Chapter 5, Section 5.6, Transportation and Circulation, which finds that the AC34 project would result in less-than-significant impacts on emergency response.

Team Base Operations Manual

Implementation of Team Base Operations Manual as described in Impact HZ-1 on EIR pages 5.17-11 through 5.17-13 would incorporate the legal requirements of Articles 21, 21A, and 22 of the San Francisco Health Code. These code sections include preparation and implementation of a hazardous materials business plan (HMBP) that includes hazardous materials inventories, a program for reducing the use of hazardous materials and generation of hazardous wastes, site layouts, a program and implementation plan for training all new employees and annual training for all employees, and emergency response procedures and plans. The HMBP would be subject to the review and approval of the DPH.

12.23.6 Cumulative Impact Analysis [HZ-5]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

O-WW-59

- The EIR artificially limits the geographic scope of cumulative hazardous materials impacts to the project site and immediate vicinity. The geographic scope should include San Francisco Bay because a release of hazardous materials could potentially affect the Bay. Mitigation Measure M-HZ-3 is inadequate to support the conclusion that the cumulative impacts of the project would be less than significant. [O-WW-59]

Response HZ-5

The adequacy of Mitigation Measure M-HZ-3 is addressed in Response HZ-1. In response to this comment, Impact C-HZ is revised to change the geographic scope of cumulative hazardous materials impacts. (Note that the conclusions of the cumulative impact analysis remain the same with the revised geographical scope.)

The following revisions are made to the first paragraph of Impact C-HZ on EIR page 5.17-26 to address the change in geographic scope (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> Impacts from hazards are generally site specific, and do not generally result in cumulative impacts unless the potentially cumulative projects are in close proximity to one another. However, the AC34 events include the use of hazardous materials adjacent to and above San Francisco Bay and a release of hazardous materials could affect water quality in the Bay. Therefore, the geographic scope of potential hazards and hazardous materials includes San Francisco Bay and adjoining areas~~is limited to the project area and immediate vicinity~~.

To address the updated geographic scope of cumulative hazardous materials impacts, the last three paragraphs on EIR page 5.17-26 are revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> The AC34 events and the cruise terminal and northeast wharf plaza and many of the projects listed in Table 5.1-1 and other Bay area projects could involve some uses of hazardous materials, resulting in a potentially significant cumulative impact. However, the proposed project's (AC34 and the cruise terminal) impacts related to the routine transport, use, or disposal of hazardous materials would be less than significant with implementation of measures in compliance with existing regulations, including Articles 21, 21A, and 22 of the San Francisco Health Code and the proposed project's contribution to this cumulative impact would not be cumulatively considerable with implementation of measures in compliance these regulations (see Impact HZ-1). Further, the uses of hazardous materials as part of the projects listed in Table 5.1-1 and other Bay Area projects would be subject to the same or similar regulatory requirements.
>
> Limited, if any, soil disturbance would be required for the proposed AC34 project, and therefore the project would not likely result in the disturbance of contaminated soil during construction (see Impact HZ-2). While other projects listed in Table 5.1-1 and other Bay Area projects could encounter hazardous materials in the soil, resulting in a potentially significant impact, the proposed project's contribution to this impact would not be cumulatively considerable (i.e., would be less than significant) with implementation of the requirements of Article 22A of the San Francisco Health Code.
>
> The proposed project would result in the demolition or renovation of existing buildings that could include hazardous building materials and the removal of creosote-treated piles and structures. ~~Based on the age of many buildings throughout much of the city, m~~Many of the projects listed in Table 5.1-1 and other Bay area projects could also require demolition or renovation of buildings that include hazardous building materials or creosote-treated piles, resulting in a potentially significant cumulative impact. However, as discussed above, the proposed project would implement measures to comply with existing regulations for abatement of asbestos-containing materials and lead-based paint as well as existing regulations for management and treatment of creosote-treated piles and structures. The project sponsor would also implement **Mitigation Measure M-HZ-3** (Removal of Hazardous Building Materials) which requires a survey for other hazardous building materials as well as removal and disposal of these materials in accordance with applicable laws. With implementation of these regulatory requirements and **Mitigation Measure M-HZ-3**, the proposed project's contribution to this impact would not be cumulatively considerable (i.e., would be less than significant).

The above revisions do not change the analysis or conclusions presented in the EIR.

12.23.7 Concurrence with Comments of Others [HZ-6]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

O-ACEC-329

- The comments submitted by Arc Ecology are incorporated by reference. [O-ACEC-329]

Response HZ-6

Comment noted. Responses HZ-1 through HZ-5 above provide responses to the comments from Arc Ecology.

12.24 Mineral and Energy Resources

12.24.1 Overview of Comments on Mineral and Energy Resources

The comments and corresponding responses in this section cover topics in Chapter 5, Section 5.18, of the EIR. These include topics related to:

- ME-1, Adequacy of Impact Analysis

12.24.2 Adequacy of Impact Analysis [ME-1]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-WW-63	O-WW-64

- The EIR provides no basis for the conclusion that the event will not use fuel, energy, or water in an inefficient or "wasteful" manner simply because the AC34 project is temporary. Also, the EIR fails to acknowledge that the project could result in successive defense of the America's Cup at the same venue. [O-WW-63]
- The EIR fails to determine that the project would not use large amounts of energy, water, or fuel, even if such use would be done in an efficient / non-wasteful manner. [O-WW-64]

Response ME-1

CEQA Guidelines Appendix F, Section II(C) suggests factors that may be considered when determining whether proposed projects use large amounts of energy or use energy, water, or fuel in a wasteful manner. These factors include the project's energy use efficiencies, the effects of a project on local and regional supplies and requirements for additional capacity, the effects of a project on peak and base demand period demands for electricity and other forms of energy, the degree to which the project complies with existing energy standards, the effect of the project on energy resources, and the project's estimated use of efficient transportation energy alternatives.

Impact ME-1 on EIR pages 5.18-15 through 5.18-19 discusses the use of energy resources including fuel, energy, and water for the AC34 project. The conclusion that the project would not use a large amount of energy resources or use those resources in a wasteful manner is based not only on the fact that the use of energy resources would be temporary and consistent with other events of the same size, but also that the project would also comply with state and local requirements for efficient use of fuel, energy, and water and would implement a Sustainability Plan describing event-related sustainability activities that would meet or exceed these requirements. Combined, these project attributes would ensure that large amounts of energy would not be used, as well as that energy would not be used in a wasteful manner.

Regarding the use of large amounts of energy, as described on pages 5.18-18 and 5.18-19, the amount of energy, fuel, and water used for AC34 events would not be substantially different from what would be used for other large events occurring within San Francisco, and would be temporary in nature, occurring only during the AC34 events in 2012 and 2013.

Regarding the degree to which the project complies with existing resource use standards and efficiencies, as described under Impact ME-1, the project—or applicable portions thereof—would comply with the following regulations and efficiency programs: the California Energy Efficiency Standards for Residential and Nonresidential Buildings, the Port of San Francisco Building Code Chapter 13C, LEED®, and the San Francisco Water Efficient Landscaping Ordinance. In addition, please see Section 5.18.2, Regulatory Framework, pages 5.18-7 through 5.18-13, which describes laws and regulations applicable to the project. Therefore, the project would comply with energy standards and efficiency programs.

In addition to compliance with state and local requirements, the project sponsor would strive to optimize the use of energy and maximize the efficient use of natural resources in accordance with the Sustainability Plan. This plan, a draft of which was released for public review and is available at http://sfgov.org/site/frame.asp?u=http://www.oewd.org, is being prepared by the Event Authority in consultation with the Department of the Environment as part of the project. The plan seeks to exceed local environmental requirements where feasible, and where efficiency can be maximized or innovation can be realized. The Sustainability Plan is an overarching document describing sustainability-related regulations applicable to the AC34 events and addresses both onshore and offshore event sustainability issues, including the use of water, energy, and fuel.

As part of energy optimization, the Draft Sustainability Plan describes activities to achieve carbon neutrality for events to be conducted by the Event Authority and prioritizes the reduction of the event carbon footprint for major project components. In addition, the Draft Sustainability Plan discusses the desire to use onsite renewable energy to replace fossil-fuel based energy sources; development of guidelines for race team boat drivers to promote fuel efficiency; development of a sustainability strategy for technology to maximize energy efficiency and conservation and reduce the amount of materials required to achieve the maximum beneficial outcome; implementation of load management for any event generators; use of grid electricity where feasible; selection of efficient lighting systems for temporary event operations; use of energy conservation and efficiency measures for event equipment; and reduction of the need for cooling and heating, where possible.

Regarding transportation, the Draft Sustainability Plan emphasizes alternative transportation methods and discusses several approaches to minimizing the use of fuels, including:

- Minimizing the need to transport equipment, materials, and people in planning for and staging of the AC34 events.
- Minimizing travel distances for all goods and services.

- Prioritizing low fuel use mobility solutions for the event work force such as walking, cycling, use of public transportation, and use of shared vehicles where these options are not available or feasible. The use of hybrid, electric, or alternative fueled vehicles, where feasible, is also emphasized.

- Promoting the use of bicycle, pedestrian, and transit connections between major event venues.

- Providing bicycles, including cargo bicycles as appropriate, for the event work force.

Regarding the project's efficient use of transportation, as stated on pages 5.18-14, 5-18-16, and 5.18-19, the AC34 project would incorporate measures to reduce automobile use and encourage use of transit, bicycle, and pedestrian modes. These measures would be implemented as part of the project and included in the People Plan.

Regarding water usage, the Draft Sustainability Plan seeks to conserve the use of potable water at event venues through the use of low-flow fixtures, reduction in consumption, monitoring of water usage, and repair of any leaks. The Plan also specifies that gray water use at event venues would be maximized where feasible, and that non-potable water would be used for cleaning race boats and dock surfaces if available and consistent with water quality regulations. In addition, the City's water efficiency standards, normally applied only to permanent landscaping, would be applied to any temporary facilities with vegetation. As discussed on EIR page 5.18-18, use of potable water for toilet and sanitary needs would be minimized through compliance with the San Francisco Green Building Code and Port of San Francisco Building Code, which require the use of water-efficient plumbing fixtures and fixture fittings.

As part of the Draft Sustainability Plan, the project sponsor would also aspire to showcase innovative renewable energy mobile event equipment; install equipment energy management systems, as appropriate, to identify unnecessary energy consumption and potential system faults; and investigate, with the City and relevant authorities, the installation of electric vehicle charging stations near event venues, where appropriate. In addition to these project-specific goals, the Draft Sustainability Plan seeks to leave an environmental legacy through inclusion of efforts to raise sustainability awareness and foster pro-environmental behavior and sustainable lifestyles, and this legacy would serve to reduce energy resource requirements for future projects.

With adherence to the requirements of existing state and local requirements identified in Section 5.18.2 of the EIR and the Draft Sustainability and the People Plans, as addressed in the EIR analysis, and clarified above, the demand for energy resources would not affect regional supplies, available energy resources, or peak demand periods, or require additional capacities. The project would therefore not use large amounts of energy in those contexts, the impact would be less than significant, and no further EIR analysis is required to demonstrate that the project would not use large amounts of energy resources, or use those resources in a wasteful manner.

See also Section 12.13, which contains responses to comments received on the air quality section of the EIR, for a discussion of augmented air quality measures that would reduce emissions and also promote fuel efficiency.

In response to Comment O-WW-63, which states that the America's Cup events could be held at the same venues in a future date, depending on the outcome of the event: please see Section 12.4, Response PD-8, and Section 12.27, Response AL-4. As stated in those responses, it would be speculative to assume at this time what the outcome of the AC34 races would be. A successive America's Cup event in San Francisco, if any, would be subject to its own future host agreement and environmental review, and therefore is not addressed in the EIR for the AC34 project.

12.25 Agricultural and Forest Resources

No comments were received on topics related to Chapter 5, Section 5.19, of the EIR.

12.26 Other CEQA Issues

12.26.1 Overview of Comments on the Other CEQA Issues

The comments and corresponding responses in this section cover topics in Chapter 6, Other CEQA Issues, of the EIR. These include topics related to:

- OC-1, Significant and Unavoidable Impacts

12.26.2 Significant and Unavoidable Impacts [OC-1]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-GGAS2-19

- The proposed project would result in significant and irrevocable changes to the San Francisco waterfront and open water areas in the Bay. The City should be sensitive to the needs of wildlife and habitats. The City should identify and study all impacts and propose adequate mitigation measures. [O-GGAS2-19]

Response OC-1

The commenter states that the City should identify all impacts and propose adequate mitigation measures. The commenter states that the project would result in irrevocable changes to the waterfront and should be sensitive to the needs of wildlife and habitat.

The proposed projects' impacts on wildlife and habitats are analyzed in Chapter 5, Section 5.14, Biological Resources. All potentially significant and significant impacts on wildlife and habitats were determined to be less than significant with implementation of identified mitigation measures; none of the impacts on biological resources were determined to be significant and unavoidable.

As described in EIR Chapter 2, page 2-1, this EIR has been prepared in compliance with CEQA (California Public Resources Code, Sections 21000 *et seq.*), the CEQA Guidelines, and Chapter 31 of the San Francisco Administrative Code, and the EIR identifies all significant impacts of the proposed projects consistent with CEQA Guidelines Section 15382. Mitigation measures are identified throughout the document to reduce significant impacts, but in some cases, impacts cannot be mitigated to less-than-significant levels.

Significant and unavoidable impacts are summarized in Chapter 6, Section 6.3, Significant Unavoidable Impacts, pages 6-8 to 6-10. Consistent with CEQA Guidelines Section 15126(c), Section 6.4, Significant Irreversible Environmental Changes, pages 6-10 through 6-12, describes the "irrevocable changes" to the waterfront. As stated on pages 6-10 and 6-11, under the AC34 project, future long-term development rights, including potential permanent marinas in the

Rincon Point, Brannan Street Wharf Open Water Basins, or other locations such as in the vicinity of Pier 54, could commit future generations to a similar use, but project-specific CEQA review would be required for any such future development and would determine if there would be any significant irreversible environmental changes. Development of the Cruise Terminal project would also commit future generations to similar use.

12.27 Alternatives

12.27.1 Overview of Comments on Alternatives

The comments and corresponding responses in this section cover topics in Chapter 7, Alternatives, of the EIR. These include topics related to:

- AL-1, Range of AC34 Alternatives
- AL-2, Range of Cruise Terminal Alternatives
- AL-3, Impacts of Identified Alternatives
- AL-4, Successive Defense Option
- AL-5, Opinion

12.27.2 Range of AC34 Alternatives [AL-1]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-54
O-ACEC-258
O-ACEC-321
O-ACEC-345
O-ACEC-346
O-ACEC-347
O-STB-03
O-STB-07
I-Strassner-01

- The EIR should consider alternatives to partial demolition of the Pier 29 shed that could include temporary pubic viewing platforms by using barges or cruise ships, adding a viewing area behind the Ferry Building by removing the World Trade Club. [O-ACEC-54]

- The Draft EIR fails to consider reasonably foreseeable alternative locations or designs for the America's Cup or Cruise Terminal projects that would reduce wind impacts. The sponsors should consider the triangle parking lot at Fisherman's Wharf or the space behind the Ferry Building instead. These locations would provide long-term public benefits. [O-ACEC-258]

- The Draft EIR fails to consider dredging alternatives that could minimize impacts. [O-ACEC-321]

- The range of alternatives is improperly constrained by the assumption that the Host Agreement is an obligation of the City, even though no CEQA review of the Host Agreement has yet been conducted. The range of reasonable and feasible alternatives is improperly constrained by the project objectives. [O-ACEC-345]

- Consideration of the cruise terminal project and the AC34 events jointly as dependent projects in the Draft EIR does not allow an adequate review of alternatives for either project. The Draft EIR fails to consider reasonably feasible alternatives to the AC34 project that would leave a lasting legacy in the creation of beneficial open space. A prime viewing area for AC34 could be created by converting the triangle parking lot at Fisherman's Wharf into open space. Also suggested is the use of space behind the Ferry Building requiring the elimination of the restaurant building. Such viewing areas could eliminate or reduce the size of the viewing area at the end of Piers 27-31 and allow more flexibility in the design of the cruise terminal and Northeast Wharf Plaza. [O-ACEC-346]

- Alternatives for both the AC34 and Cruise Terminal projects fail to consider an analysis that would be consistent with the BCDC Special Area Plan. [O-ACEC-347]
- The Draft EIR fails to adequately analyze alternatives to dredging that could minimize adverse impacts on water quality, fish, and wildlife. The Final EIR should analyze alternatives that make use of areas where existing depth is sufficient to obviate the need for some or all of the dredging. [O-STB-03]
- The Final EIR should expand the range of alternatives and analyze the following opportunities: develop a race viewing area behind the Ferry Building; provide a permanent, open space plaza at Fisherman's Wharf; and limit improvements on Piers 30-32. [O-STB-07]
- The EIR should consider other alternatives to a City side berthing area for large private or corporate yachts. [I-Strassner-01]

Response AL-1

As described in Chapter 7 of the EIR, the selection and analysis of alternatives for the AC34 and Cruise Terminal projects were conducted independently for the two projects to support the separate discretionary approval actions for the two projects. Therefore, embedded within the range of alternatives for one project is the analysis of every combination of alternatives with and without implementation of the other project. Although they are related projects, the impact analyses for the AC34 and Cruise Terminal projects are considered independently throughout the EIR, including in the alternatives analysis.

In addition to the no project alternative, the alternatives selected for analysis for both projects represent various strategies for avoiding or reducing any significant environmental impacts of the project while still attaining most of the project objectives and being considered reasonably feasible, consistent with CEQA Guidelines Section 15126.6(c). For the AC34 project, this range of alternatives represents strategies that would reduce impacts at land-based spectator venues and secondary viewing areas (Open Ocean Alternative), reduce impacts due to 2012 construction and operation and long-term development rights (Reduced Intensity AC34 and Long-Term Development Alternative), and reduce impacts at the Rincon Point Open Water Basin (Reduced Spectator Berthing Alternative). Inherent in the Reduced Spectator Berthing Alternative is a reduction in dredging compared to the proposed project and the associated reduction in dredging impacts on water quality, marine biological resources, noise, and air quality. The range of alternatives for the Cruise Terminal project is discussed in Response AL-2, below.

In response to Comment O-ACEC-345: the Host Agreement sets forth the understanding of the parties with respect to the AC34 project, and the principles espoused in the Host Agreement served as an inducement to the Event Authority in agreeing to stage the event in San Francisco and pursue the required infrastructure upgrades. As such, references to the Host Agreement to describe the project objectives related to infrastructure upgrades and long-term development rights are appropriate.

Consistent with CEQA Guidelines Section 15126.6(a), an EIR need not consider every conceivable alternative to a project, but it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. The following discussion responds to the alternatives suggested in the comments on the Draft EIR.

Several commenters suggest an alternative that would add a viewing area or relocate the America's Cup Village behind the Ferry Building by either removing the World Trade Club or a restaurant building. The World Trade Club building is subject to a long-term lease. That building sits on ventilation equipment and infrastructure systems for BART's transbay tunnel, in an area that the Port licenses to BART. The unnamed restaurant building likely refers to Sinbad's Restaurant, located along the southern edge of Ferry Plaza. Ferry Plaza itself is ringed by berths for commuter ferries to Sausalito, Larkspur, and Vallejo, and the Tiburon Ferry landing lies just to the north. Security concerns for the BART structures and potential interference with several commuter transit lines make this alternative strategy infeasible due to security issues (for the transbay tunnel), conflicts with the goal of encouraging multi-modal transit, and pre-existing contract obligations.

Similarly, suggested alternatives to use the triangular parking lot at Fisherman's Wharf for an open viewing area would be infeasible. The site is landward of The Embarcadero and, unlike other viewing areas located directly on the waterfront, does not offer largely unobstructed views of the Bay, as there are several intervening structures. Furthermore, the limited space and orientation of the site do not meet the program requirements for a desirable viewing location, and the project sponsors have selected Aquatic Park as the preferred venue along this portion of the waterfront.

The Reduced Spectator Berthing Alternative would in many respects be more consistent with the BCDC Special Area Plan than the proposed project, but using barges as viewing platforms would not be consistent with BCDC's policy to minimize fill in the Bay, which applies even to temporary structures such as the suggested viewing platforms. The use of cruise ships for viewing platforms would be costly, without providing any permanent public benefit such as the Event Authority's investment in infrastructure. Cruise ship berthing for viewing platforms would create even greater obstruction of open Bay views than spectator vessels and could result in a potential increase in air pollutant emissions and higher potential for release of hazards materials or wastes; thus, using cruise ships as an alternative viewing platform would not reduce environmental impacts. The Reduced Intensity AC34 and Long-Term Development Alternative, as well as the modified version of this alternative, would limit improvements on Piers 30-32. In response to Comment I-Strassner-01 regarding use of other cities for berthing options: Chapter 7, Section 7.4, discusses alternatives considered but rejected, including an alternative to use other Bay Area cities for hosting or berthing facilities.

12.27.3 Range of Cruise Terminal Alternatives [AL-2]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-53
O-ACEC-258
O-ACEC-345
O-ACEC-346
O-ACEC-347
O-STB-07

- The EIR should consider alternative designs for the cruise terminal that would be more compatible with the materials, features, size, scale, proportion, and massing of the nearby historic bulkhead buildings and pier sheds. [O-ACEC-53]
- The Draft EIR fails to consider reasonably foreseeable alternative locations or designs for the America's Cup or Cruise Terminal projects that would reduce wind impacts. The sponsors should consider the triangle parking lot at Fisherman's Wharf or the space behind the Ferry Building instead. These locations would provide long-term public benefits. [O-ACEC-258]
- The range of alternatives for the cruise terminal is artificially limited by questionable findings that potentially significant impacts related to cultural resources, transportation, wind, and biology (bird strikes) could be mitigated to less-than-significant levels. [O-ACEC-345]
- The cruise terminal alternatives should consider a design that would include the demolition of Pier 27 and the restoration of the end of Pier 29, with construction of a new cruise terminal parallel to Pier 29 similar to a design previously proposed by the Mills Corporation for the site. [O-ACEC-346]
- Alternatives for both the AC34 and Cruise Terminal projects fail to consider an analysis that would be consistent with the BCDC Special Area Plan. [O-ACEC-347]
- The Final EIR should expand the range of alternatives and analyze the following opportunities: design the new cruise ship terminal to include a publicly accessible rooftop or elevated observation deck, and accelerate completion of the Northeast Wharf Plaza. [O-STB-07]

Response AL-2

Chapter 7, Section 7.3, pages 7-63 to 7-78, presents the alternatives analysis for the Cruise Terminal project, including the Northeast Wharf Plaza. As described above, the range of alternatives selected for analysis represents various strategies for avoiding or reducing significant environmental impacts of the project while still attaining most of the project objectives and being considered reasonably feasible, consistent with CEQA Guidelines Section 15126.6(c). In addition to the no project alternative, the alternative analyzed (Renovation of Pier 27 Shed Alternative) represents strategies that would reduce environmental impacts associated with demolition and with potential bird strikes due to the retention of the existing structure at Pier 27, which would substantially reduce construction activities and eliminate the glass façade that causes bird strikes.

Comment O-ACEC-245 states that the EIR should have considered alternatives to reduce or avoid the potentially significant wind impacts at Piers 27–29. The Renovation of Pier 27 Shed Alternative, described in Chapter 7 beginning on page 7-70, would result in wind impacts similar to those of the proposed project, and these impacts could be mitigated to less-than-significant levels (as they would be under the proposed project) through design features, access limitations, and signage.

Regarding other potential cruise terminal locations to reduce or avoid wind impacts, as stated in Chapter 7, page 7-83 through 7-85, the location of the proposed cruise terminal has been determined through extensive planning and site feasibility studies. Other locations reviewed include Piers 50, 70, 80, and 94-96, but these locations were determined to be infeasible or to not meet the project sponsor objectives. Comment O-ACEC-258 also suggests the area behind the Ferry Building as a potential location for the new cruise terminal, but this location does not meet the requirements for berth size, operational vehicular access, depth, and security, and locating a cruise terminal here could create conflicts with other long-term uses in this area. Therefore, these alternative locations were not selected for analysis.

Please see Response AL-1, above, regarding a reasonable range of alternatives. As stated in CEQA Guidelines Section 15126.6(c), "the range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects." Alternatives are not required to avoid or substantially lessen *every* significant effect, but to avoid or lessen "one or more significant effects." The alternatives selected for analysis meet these criteria, even if they would not substantially lessen the project's wind impacts, which were determined to be less than significant with the incorporation of identified mitigation measures.

Comment O-ACEC-345 asserts that the range of alternatives is "artificially limited by questionable findings that potentially significant impacts to cultural resources, transportation, wind and biology (bird strikes) could be mitigated to 'less than significant.'" As described in EIR Section 7.3.2, pages 7-64 to 7-65, the alternatives analysis considers all significant and potentially significant impacts identified for the proposed project, regardless of whether or not there were feasible mitigation measures that would reduce impacts to less-than-significant levels. Thus, the potentially significant impacts listed by the commenter were considered in the determination of alternatives for the cruise terminal.

The alternative cruise terminal designs suggested by the commenters were not analyzed in the EIR either because they were determined to be infeasible, would not reduce significant impacts, or would not achieve most of the project objectives. Compared to the proposed Cruise Terminal project, the Renovation of Pier 27 Shed Alternative analyzed in the EIR would be more compatible with the materials, features, size, scale, proportion, and massing of the nearby historic bulkhead buildings and pier sheds, as suggested in Comment O-ACEC-53. Construction of a new cruise terminal similar to a design previously proposed by the Mills Corporation for the site as suggested by the comment would not reduce any significant impacts, and additionally, that proposal was for an entirely different project (i.e., a recreational facility).

With respect to consistency with the BCDC Special Area Plan, the EIR discusses this issue in Chapter 4, Plans and Policies, as well as in Chapter 5, Section 5.2, Land Use. As stated in these sections, the proposed projects would require amendments to the BCDC Special Area Plan, but project-specific land use impacts related to conflict with plan policies were determined to be less than significant. In contrast, future long-term development of marinas in the Rincon Point and/or Brannan Street Wharf Open Water Basins would result in a significant and unavoidable land use impact. Regarding conflict with BCDC policies, as stated in Chapter 4, Plans and Policies, page 4-16, BCDC is not bound to the impact significance determinations of the EIR:

> While BCDC will consider the information and analysis presented in this EIR, the Commission maintains independent authority in evaluating issues and implications of

> proposed amendment to BCDC plans and determinations for the AC34 and Cruise Terminal projects. Ultimately, in order to approve the proposed uses and improvements, BCDC would need to find them to be consistent with the McAteer-Petris Act, the policies and findings of the Bay Plan and SAP, as amended, prior to approving BCDC permits to allow the implementation of improvements.

Finally, including a publicly accessible rooftop or an elevated observation deck, or accelerating completion of the Northeast Wharf Plaza, would not avoid or reduce any significant impacts.

12.27.4 Impacts of Identified Alternatives [AL-3]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

A-NPS2-21	A-BCDC-05	A-GGBHTD-26

- It is not clear if the boat design assumptions for the Open Ocean Alternative are feasible, and the EIR draws misleading conclusions about the impacts of this alternative. [A-NPS2-21]
- BCDC staff recommends that some or all of the large, private yachts proposed in the Rincon Point Open Water Basin be relocated to the Broadway Open Water Basin since berthing of yachts in this basin is consistent with its current use. [A-BCDC-05]
- The Golden Gate Bridge, Highway and Transportation District indicates that several of the alternatives analyzed in the Draft EIR would have less impact on Golden Gate Transit and Ferry service than the proposed project. [A-GGBHTD-26]

Response AL-3

Comment A-NPS2-21 is correct in noting that there remain uncertainties associated with the boat design assumptions used for the Open Ocean Alternative. However, this alternative was included in the range of alternatives to address possible strategies to reduce significant impacts that would occur at land-based spectator venues and secondary viewing areas.

Consistent with Comment A-BCDC-05, the AC34 Reduced Spectator Berthing Alternative (see EIR, Chapter 7, Section 7.2.3.4, pages 7-41 to 7-50) would eliminate use of the Rincon Point Open Water Basin for temporary berthing (or for a permanent marina), and would instead partially replace the berthing capacity at the Broadway Open Water Basin.

Comment A-GGBHTD-26 reiterates portions of the alternatives analysis and assesses how these alternatives would specifically affect the Golden Gate Bridge, Highway and Transportation District (GGBHTD). The comment calls out impacts of the following alternatives on the GGBHTD: No AC34 but Implementation of the Cruise Terminal Project, Open Ocean Alternative with the Cruise Terminal Project, Open Ocean Alternative without the Cruise Terminal Project, Reduced Intensity AC34 and Long-Term Development Alternative without the Cruise Terminal Project, Reduced Spectator Berthing Alternative, Cruise Terminal No Project Alternative, and Renovation of Pier 27 Shed Alternative. The Planning Department concurs with the assessment made by the commenter on each of these alternatives, and this assessment is consistent with the analysis and conclusions of the EIR.

12.27.5 Successive Defense Option [AL-4]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comments:

O-ACEC-346	O-TIRN2-04

- The alternatives analysis must address the reasonably foreseeable event that the America's Cup title is retained and future races continue to be hosted in San Francisco. [O-ACEC-346]
- The Draft EIR does not assess an alternative that describes the America's Cup as a long-term impact if the sailing event continues to be held in San Francisco Bay after 2013. [O-TIRN2-04]

Response AL-4

Chapter 3, Section 3.4.9, page 3-93, addresses the possibility of the Golden Gate Yacht Club (GGYC) winning the AC34 races and holding the subsequent America's Cup race event in San Francisco. At this time, it would be speculative to assume that the GGYC would successfully defend the America's Cup in AC34, and that it would then elect to hold the subsequent America's Cup event in San Francisco. Similarly, it would be speculative to assume that any challenging team may win AC34 and would propose to hold the subsequent America's Cup event in San Francisco. Regardless, any proposal to host a subsequent America's Cup event in San Francisco would be subject to a new Host Agreement between the America's Cup Event Authority and the City and County of San Francisco. Any future America's Cup events would be subject to environmental review under CEQA and would be required to obtain applicable permits and approvals for the proposed race periods and years. The location and nature of facilities for a future America's Cup scenario in San Francisco, as well as any associated environmental impacts, are not reasonably foreseeable and therefore not analyzed at this time.

In addition to being speculative in nature, this alternative would not meet the fundamental project objectives nor would it necessarily avoid or reduce any of significant environmental impacts of the proposed project. Therefore, an alternative to host future America's Cup events in San Francisco was not analyzed in this EIR.

12.27.6 Opinion [AL-5]

Summary of Issues Raised by Commenters

This response addresses all or part of the following comment:

O-TIRN2-01

- The Turtle Island Restoration Network urges adoption of the environmentally superior alternatives for the AC34 and Cruise Terminal projects. [O-TIRN2-01]

Response AL-5

This comment reflects an opinion regarding project approval actions, and the information will be forwarded to the decision-makers. No response is required.

CHAPTER 13

Draft EIR Revisions

This chapter presents revisions to the text, tables, and figures of the 34th America's Cup and James R. Herman Cruise Terminal and Northeast Wharf Plaza Project Draft EIR, published on July 11, 2011. These changes include both (1) revisions made in response to comments on the Draft EIR which are presented in Chapter 12, as well as (2) staff-initiated text changes to correct minor inconsistencies, to add minor information or clarification related to the project, and to provide updated information where applicable. None of the revisions or corrections in this chapter change the analysis and conclusions presented in the Draft EIR.

The chapter includes all revisions to the Draft EIR, in the sequential order by volume - chapter - section - page that they appear in the document. Multiple text changes to the same EIR paragraphs, tables, or figures are compiled and shown together. Preceding each revision is a brief explanation for the text change, either identifying the corresponding response topic codes, such as Response LU-2 where the issue is discussed in Chapter 12 or indicating the reason for a staff-initiated change. Deletions in text and tables are shown in strikethrough (~~strikethrough~~) and new text is shown in underline (underline). Figures and tables are noted as "(Revised)" next to the figure or table number.

As indicated in Chapter 11, this chapter includes text changes associated with project updates applicable to the proposed projects as they were described in the Draft EIR. The Draft EIR revisions in this chapter do not reflect the descriptions and impact analyses of the AC34 and Cruise Terminal Project Variants, or the New AC34 Project Alternative; that information is wholly contained in Chapter 11. Thus, the text changes shown in this chapter apply to the Draft EIR project, as presented in Chapters 2 through 7 of the EIR. In some cases, as described in Chapter 11, the descriptions and analyses of the AC34 and Cruise Terminal Project Variants rely on those of the Draft EIR projects. Insofar as the portions of the Draft EIR projects and analyses affected by text changes in this chapter also apply to the AC34 and Cruise Terminal Project Variants, the revisions in Chapter 13 also apply to these variants. In general, however, the descriptions and analyses of the AC34 and Cruise Terminal Project Variants in Chapter 11 incorporates the revisions presented in this chapter.

13.1 Changes to the EIR

13.1.1 Volume 1

Front Matter

As discussed in Response CP-2, the following new text is added to the list of acronyms on page xvi, following "hp":

> HPC San Francisco Historic Preservation Commission

Chapter 1. Executive Summary

As discussed in Response PD-6, the EIR text on page 1-1, first paragraph, last sentence, is revised to delete the statement, as follows:

> ~~Both projects would be located primarily along the northeast waterfront of San Francisco.~~

City staff has revised Section 1.1, page 1-1, following the second full paragraph to insert a new paragraph and to correct the next paragraph, as follows to update the information in the summary to reflect the Final EIR:

> This chapter describes the projects as proposed in the Draft EIR. Please see Chapter 11 of this document, which describes new variants to both the AC34 and Cruise Terminal projects.
>
> Readers should not rely on this Executive Summary alone for a thorough understanding of the proposed projects, impacts, mitigation measures, or alternatives. For a more complete understanding of the contents of this EIR, please refer to the individual sections of this EIR, including Chapter 3, Project Description; Chapter 5, Environmental Setting, Impacts, and Mitigation Measures; ~~and~~ Chapter 7, Alternatives; Chapter 11; and Chapter 12, Responses to Comments.

City staff has revised page 1-5, first sentence of the fourth full paragraph, as follows to correct an editorial error:

> As provided for under the Host Agreement, the AC34 project would also provide the Event Authority with certain conditional long-term development rights at selected Port facilities, potentially including Piers 30-32, Pier 26, Pier 28, Pier 19, Pier 19½, Pier 23, Pier 29, Seawall Lot 330~~,~~ and the Brannan Street Wharf and Rincon Point Open Water Basins.

The following edits are made to Table 1-3, Summary of Impacts and Mitigation Measures, to reflect revisions to impact statements and mitigation measures and clarification of significance determinations as described in this Comments and Responses document and presented later in this chapter in the sequential order of the pages on which the changes occur. To avoid re-printing the entire 80-page table, only rows with revisions are shown.

City staff has revised EIR page 1-19, Impact C-LU, as follows to clarify the cumulative impact analysis:

Impact C-LU: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative land use impacts.	Both Projects: LTS	No mitigation necessary.

City staff has revised EIR page 1-20, Impact C-AE, as follows to clarify the cumulative impact analysis:

Impact C-AE: The projects, in combination with other past, present, and reasonably foreseeable future projects, ~~There~~ would not result in significant adverse ~~be~~ cumulative impacts on visual quality.	Both Projects: ~~NI~~LTS	No mitigation necessary.

City staff has revised EIR page 1-21, Impact C-PH, as follows to clarify the cumulative impact analysis:

Impact C-PH: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts on population and housing.	Both Projects: LTS	No mitigation necessary.

As discussed in Response CP-9b, Mitigation Measure M-CP-1b (Protection of Historic Resources due to Indirect Damage) on page 1-23 is revised as follows:

Impact CP-1 (cont.)		**Mitigation Measure M-CP-1b: Protection of Historic Resources due to Indirect Damage** • ***Fencing and Signage*:** The project sponsor shall protect the integrity of historic earthen fortifications and other fragile historic resources by the installation of fencing and signage. The fencing shall consist of, for example, filter fabric backed with welded mesh set into the ground. These fences should be light enough for removal between 2012 and 2013 race events, but would be obvious deterrents to visitors. The fencing shall also have signs announcing that these are sensitive historic areas and that entry is prohibited. Fencing location/length and signage type shall be determined in consultation with the appropriate land authority where indirect impacts are anticipated (e.g., National Park Service [NPS], the Presidio Trust, or California Department of Parks and Recreation [CDPR]). • ***Pre- and Post-Event Conditions Assessment and Repair*:** Prior to the 2012 AC34 events, the project sponsor shall ensure that qualified cultural resources personnel assess the existing condition of the historic earthen fortifications and other fragile historic resources that could be subject to erosion from increased visitation. Standardized site assessment forms, similar to those used by the National Park

Impact CP-1 (cont.)		Service, shall be completed for all such affected historic resources. Forms include thorough photo documentation, description, and GIS location information. The exact number of resources to be recorded, and the exact methods of recordation, shall be determined in consultation with the appropriate land authority where the indirect impacts are anticipated (e.g., NPS, the Presidio Trust, or CDPR). Following the 2013 AC34 event, the project sponsor shall ensure that qualified cultural resources personnel reassess the condition of historic resources identified above. Any unintended damage to historic resources as a result of the AC34 event will be repaired by the project sponsor to its pre-event condition.

As discussed in Response CP-9d, Mitigation Measure M-CP-1d on pages 1-24 to 1-25 is revised as follows:

Impact CP-1 (cont.)		**Mitigation Measure M-CP-1d: Protection of the Northeast Waterfront Historic District from Teatro Zinzanni Relocation** If Teatro Zinzanni opts to relocate to Seawall Lot 324 within the Northeast Waterfront Historic District, prior to the execution of any Port lease, Teatro Zinzanni shall ~~secure a Certificate of Appropriateness for the~~ present the proposed relocation project design to ~~from~~ the Historic Preservation Commission (HPC), which shall ~~require compliance~~ review the proposed project and make findings that the proposed design complies with Article 10, Appendix D of the Planning Code and the Secretary's Standards. Specifically, the HPC shall ~~require compliance~~ make specific findings that the proposed project complies with Sections 6 and 7 of Article 10, Appendix D, incorporated here by reference, which provide additional requirements for Certificates of Appropriateness in the Northeast Waterfront Historic District. These additional requirements address the architectural and visual characteristics that define this district, including façade line continuity, fenestration and design elements for new construction, and appropriate roof treatments. If ~~a Certificate of Appropriateness is not granted~~ the HPC does not make these findings, the Port shall not approve the proposed lease on Seawall Lot 324.

As discussed in Response CP-9e, Mitigation Measure M-CP-2 on page 1-25 is revised as follows:

Impact CP-2: Construction and operation of the proposed AC34 project could cause a substantial adverse change in the significance of an archeological resource, including shipwrecks.	LTSM	**Mitigation Measure M-CP-2: Inadvertent Discovery of Archeological Resources or Shipwrecks.** The following measures shall be implemented should construction activities result in the inadvertent discovery of a cultural resource: To avoid any potential adverse effect from the proposed project on inadvertently discovered buried or submerged historic resources, as defined in CEQA Guidelines Section 15064.5~~.4~~(a)(c), the project sponsor will distribute the Planning Department's archeological resource "ALERT" sheet to the project prime contractor; to any project

Impact CP-2 (cont.)		subcontractor firms (including demolition, excavation, grading, foundation, pile driving, etc.); and/or to utilities firms involved in soil- or Bay bottom-disturbing activities within the project site. Prior to any soil- or Bay bottom-disturbing activities being undertaken, each contractor is responsible for ensuring that the ALERT sheet is circulated to all field personnel, including machine operators, field crew, pile drivers, supervisory personnel, etc. the project sponsor will provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) confirming that all field personnel have received copies of the ALERT sheet.

City staff has revised EIR page 1-31, Impact C-CP, as follows to clarify the cumulative impact analysis:

Impact C-CP: The ~~combination of~~ AC34 and Cruise Terminal projects, in combination with other past, present and foreseeable future projects, could have a cumulatively considerable effect on cultural resources.	Both Projects: LTSM	AC34 Project Mitigation **Mitigation Measure M-CP-1a. Bulkhead Wharf Substructure Review Process** **Mitigation Measure M-CP-1b: Protection of Historical Resources due to Indirect Damage** **Mitigation Measure M-CP-1c: Protection of Historical Resources due to Direct Damage** **Mitigation Measure M-CP-1d: Protection of the Northeast Waterfront Historic District from Teatro Zinzanni Relocation** **Mitigation Measure M-NO-3: Pre-Construction Assessment to Minimize Structural Pile-Driving Vibration Impacts on Adjacent Historic Buildings and Structures and Vibration Monitoring** (see Section 5.7, Noise) **Mitigation Measure M-CP-2: Inadvertent Discovery of Archeological Resources or Shipwrecks** **Mitigation Measure M-CP-4: Inadvertent Discovery of Human Remains** ~~**Mitigation Measure M-CP-6. Northeast Wharf Plaza Performance Criteria**~~ See **Mitigation Measures M-LT-CP-a** and **M-LT-CP-b** in Table 1-4, below. Cruise Terminal Project Mitigation **Mitigation Measure M-CP-2: Inadvertent Discovery of Archeological Resources or Shipwrecks** **Mitigation Measure M-CP-4: Inadvertent Discovery of Human Remains** **Mitigation Measure M-CP-6. Northeast Wharf Plaza Performance Criteria**

As stated in Response NO-6, Mitigation Measure M-NO-2a, on page 1-51 is revised as follows:

Impact NO-2: Operation of the America's Cup events and facilities would result in exposure of persons to or generation of noise levels in excess of standards established in the *San Francisco General Plan* or San Francisco Noise Ordinance.	SUM	**Mitigation Measure M-NO-2a: Selection, Shielding or Acoustical Enclosures for Generators at Piers 27-29 and Marina Green and Use of Electrical Service at Piers 27-29** At Piers 27-29, ~~T~~the AC34 project sponsor shall use utility electricity in lieu of generators, if available; if electricity requirements exceed available power, the AC34 project sponsor shall use generators. The AC34 project sponsor shall provide shielding or acoustical enclosures for generators at Piers 27-29 and the Marina Green. Specification sheets for generators indicate that Level 1 sound enclosures will dampen noise levels by 5 dBA for the size of generators proposed ~~for Piers 27-29~~. Additionally, the project sponsor shall achieve a performance standard of 60 dBA at the Crissy Field Center when educational activities are in progress.

City staff has revised EIR page 1-54, Impact C-NO, as follows to clarify the cumulative impact analysis:

Impact C-NO: The AC34 project, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts on noise; but Cruise Terminal project ~~Project~~-related traffic, in combination with other past, present, and reasonably foreseeable future projects, would result in significant and unavoidable adverse cumulative noise impacts.	AC34 Project: LTSM Cruise Terminal Project: SU~~M~~	AC34 Project Mitigations **Mitigation Measure M-NO-1a: Noise Controls During Construction** **Mitigation Measure M-NO-1b: Pile Driving Noise-Reducing Techniques and Muffling Devices** **Mitigation Measure M-NO-3: Pre-Construction Assessment to Minimize Structural Pile-Driving Vibration Impacts on Adjacent Historic Buildings and Structures and Vibration Monitoring**

City staff has revised EIR page 1-45, Impact TR-69, as follows to clarify the applicable mitigation measures:

Impact TR-69: Implementation of the AC34 2013 events would have a potentially significant impact on transit operations related to additional congestion generated by the project.	SUM	**Mitigation Measure M-TR-1: People Plan Specific Provisions** **Mitigation Measures M-TR-26a: Barricade to Protect Transit Lanes** **Mitigation Measure M-TR-26b: Traffic Control Officers at Key Intersections**

As discussed in Response AQ-5, the Mitigation Measure M-AQ-2b on pages 1-55 and 1-56 of the EIR is amended as indicated below and the mitigation measure is augmented to add Mitigation Measures M-AQ-2c through M-AQ-2f:

Impact AQ-2: Construction of the America's Cup facilities would result in emission of criteria pollutants and precursors that would violate an air quality standard or contribute substantially to an existing or projected air quality violation.	SUM	**Mitigation Measure M-AQ-2b: Off-Road Construction Equipment** The project sponsors shall ensure that construction contract specifications include a requirement that all off-road construction equipment ~~used for AC34 improvements~~ be equipped with diesel engines meeting USEPA Tier 3 standards for NOx and PM (Tier 2 standards if greater than 750 hp) ~~diesel engines~~ or better ~~to the extent feasible~~. The following types of equipment[1] were identified as available for rental in Tier 3 models, or are candidates for retrofitting with emissions control technology, due to their expected operating modes (i.e., fairly constant use at high revolution per minute): - Excavators - Backhoes - Rubber-Tired Dozers - Concrete Boom Pumps - Concrete Trailer Pumps - Concrete Placing Booms - Compressors - Soil Mix Drill Rigs - Soldier Pile Rigs - Shoring Drill Rigs At construction locations where power demands allow it, propane generators shall be used in lieu of diesel powered generators. ~~All diesel~~Diesel generators used for project construction shall meet Tier 4 emissions standards ~~to the extent feasible~~. ~~To the extent that the above listed types of equipment are used for project construction, those equipment types shall be required to meet NOx emission standards equivalent to Tier 3 (Tier 2 if greater than 750 horsepower) engines, if feasible~~. In addition to the Tier 3 emissions standard requirement, all equipment must be equipped with a CARB Level 3 Verified Diesel Emission Control System (VDECS) for PM control, where feasible. The construction contractor shall provide proof in the form of a manufacturer's engineering evaluation or other proof to the satisfaction of the Environmental Review Officer that a CARB-verified Level 3 VDECS is not feasible for a particular equipment type. Should it be determined by the construction contractor or its subcontractors that compliance with the emissions control requirements of this mitigation measure is infeasible for any of the above-listed construction equipment, the construction contractor shall demonstrate an alternative method of compliance that achieves an equivalent reduction in the project's fleetwide NOx and PM emissions. If alternative means of compliance with the emissions exhaust requirements are further determined to be infeasible, t~~T~~he construction contractor shall document, to the satisfaction of the Environmental Review Officer, that the contractor has complied with this mitigation measure ~~to the extent feasible and indicate why full compliance with the mitigation measure is infeasible~~.

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[1] http://tier3rental.com/

Impact AQ-2 (cont.)		**Mitigation Measure M-AQ-2c: Off-Road Construction Equipment - Electricity Use** Hydropower electricity supplied by a public utility shall be used where available at pier construction sites in lieu of temporary diesel or gasoline-powered generators and compressors. Existing utility service or temporary new utility service shall be the preferred power alternative, unless proven infeasible at each location where generators are proposed. **Mitigation Measure M-AQ-2d: Off-Road Construction Equipment - Best Management Practices (BMPs)** The following types of measures are required on construction equipment: 1. Use of CARB-verified diesel oxidation catalysts and catalyzed diesel particulate traps if not already included in the design of the equipment to meet Tier 3 standards, or not already required as part of Mitigation Measure M-AQ-2b above. 2. Install high-pressure fuel injectors on construction equipment vehicles. 3. Provide on-site services to minimize truck traffic in or near residential areas, including, but not limited to, the following services: meal or cafeteria services, automated teller machines, etc. The Port shall implement a process by which to select additional BMPs to further reduce air emissions during construction. The Port shall determine the BMPs once the contractor identifies and secures a final equipment list. **Mitigation Measure M-AQ-2e: Off-Road Construction Equipment - Engine Standards for Harbor Craft Used in Construction** All harbor craft with C1 or C2 marine engines used in construction must utilize a USEPA Tier-3 engine, or cleaner, if feasible. Should it be determined by the construction contractor or its subcontractors that compliance with the emissions control requirements of this mitigation measure is infeasible for any of the harbor craft used in construction, the construction contractor shall demonstrate an alternative method of compliance that achieves an equivalent reduction in the project's fleetwide NOx emissions. If alternative means of compliance with the emissions exhaust requirements are further determined to be infeasible, the construction contractor shall document, to the satisfaction of the Environmental Review Officer, that the contractor has complied with this mitigation measure to the extent feasible and indicate why full compliance with the mitigation measure is infeasible. **Mitigation Measure M-AQ-2f: Fuels for Off-Road Construction Equipment** The project sponsors shall ensure that construction contract specifications include a requirement that all off-road construction equipment used for AC34 improvements be fueled with propane or biodiesel (B20 blended with California on-road diesel) unless precluded by engine type or warranty.

City staff has revised EIR page 1-56, Impact AQ-3, as follows to incorporate project updates:

Impact AQ-3: Construction of the America's Cup facilities would expose sensitive receptors to substantial concentrations of toxic air contaminants or respirable particulate matter (PM2.5).	AC34 Project: SUM	**Mitigation Measure M-AQ-2a: Construction Vehicle Emissions Minimization** **Mitigation Measure M-AQ-2b Off-Road Construction Equipment** **Mitigation Measure M-AQ-2c: Off-Road Construction Equipment - Electricity Use** **Mitigation Measure M-AQ-2d: Off-Road Construction Equipment - Best Management Practices** **Mitigation Measure M-AQ-2e: Off-Road Construction Equipment - Engine Standards for Harbor Craft Used in Construction** **Mitigation Measure M-AQ-2f: Fuels for Off-Road Construction Equipment**

As discussed in Response AQ-5, Mitigation Measure M-AQ-4, page 1-57, is amended as indicated below to include not only race sponsored vessels but also race support vessels as a condition of venue leases:

Impact AQ-4: Operations of the America's Cup facilities would violate an air quality standard or contribute substantially to an existing or projected air quality violation.	SUM	**Mitigation Measure M-AQ-4a: Emission Controls for Race-Sponsored Spectator and Support Vessels** The project sponsor shall require all contracts for race-sponsored spectator vessels and venue leases for race support vessels to meet U.S. EPA Tier 3 or better engine standards for marine diesel engines, as feasible. Tier 3 and Tier 4 engines would reduce ROG and NOx emissions by approximately 42 percent over Tier 1 engines and PM emissions by 78 percent over Tier 1 engine emissions.[2] Should it be determined by the project sponsor that availability of vessels with Tier 3 or Tier 4 engines for use as race-sponsored spectator vessels renders this mitigation measure infeasible, this lack of availability must be demonstrated, to the satisfaction of the Environmental Review Officer, indicating that the project sponsor has complied with this mitigation measure to the extent feasible and why full compliance with the mitigation measure is infeasible.

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[2] California Air Resources Board, Airborne Toxic Control Measure for Diesel Engines on Commercial Harborcraft Operated within California Waters and 24 Nautical Miles of the California Baseline, http://www.arb.ca.gov/regact/2007/chc07/rev93118.pdf

As discussed in Response AQ-5, the following four new mitigation measures are added to page 1-57, following Mitigation Measure M-AQ-4a, as indicated below:

Impact AQ-4 (cont.)		**Mitigation Measure M-AQ-4b: Temporary Shoreside Power for Large Private Yachts at Pier 27** The project sponsor shall install shoreside electrical power at Pier 27 to serve large, private spectator vessels during the AC34 2013 events. Shoreside power shall be supplied by a publicly owned utility supplying hydropower, if available at rates and service levels equivalent to a private utility. If shoreside power is available at berths used by large, private spectator vessels, the project sponsor shall impose as a requirement in any berthing contract with large, private spectator vessels a requirement to use shoreside power, if such vessels are so equipped. **Mitigation Measure M-AQ-4c: Alternative Low-Emissions Fuels for Large Private Yachts and Race-Sponsored Vessels** The project sponsor shall impose as a requirement in any berthing contract with large, private spectator vessels and in any contract with race-sponsored vessels, a requirement to use B20 biodiesel or higher, unless precluded by engine type or warranty, or availability. If biodiesel is precluded, such contracts shall require use of California on-road diesel. Should it be determined by the project sponsor that availability or compatibility of biodiesel with vessel engines or warranties renders this mitigation measure infeasible, this lack of availability or compatibility must be demonstrated, to the satisfaction of the Environmental Review Officer, indicating that the project sponsor has complied with this mitigation measure to the extent feasible and why full compliance with the mitigation measure is infeasible. **Mitigation Measure M-AQ-4d: Return Pier 27 to the Port Within One Month after Completion of the Match for Reconnection of Shoreside Power** The project sponsor shall reconnect shoreside power and complete Phase 2 construction of the James R. Herman Cruise Terminal and reconnection of shoreside power at Pier 27 not later than April 1, 2014, if feasible. To accommodate construction of Phase 2 improvements to the Cruise Terminal and reconnection of shoreside power, the Event Authority shall return Pier 27 to the Port within one month of the completion of the Match. Subsequently, the Port shall complete Phase 2 construction of the James R. Herman Cruise Terminal in 2013 to 2014 and reconnect shoreside power at Pier 27 no later than April 1, 2014, if feasible. Should it be determined by the project sponsor that Phase 2 construction of the James R. Herman Cruise Terminal and reconnection of shoreside power at Pier 27 by April 1, 2014 is infeasible, the project sponsor shall document, to the satisfaction of the Environmental Review Officer, that the project sponsor has complied with this mitigation measure to the extent feasible and indicate why full compliance with the mitigation measure is infeasible.

Impact AQ-4 (cont.)		**Mitigation Measure 4e: Long-term Shoreside Power at Pier 70** The project sponsor shall develop shoreside power at an offsite location that would consist of constructing 12 MW of shoreside power at the Port's Drydock #2 at Pier 70 to serve large cruise, military and other vessels while they are in drydock. Should it be determined by the project sponsor that this measure is infeasible, the project sponsor shall document, to the satisfaction of the Environmental Review Officer, that the project sponsor has complied with this mitigation measure to the extent feasible and indicate why full compliance with the mitigation measure is infeasible

As discussed in Response AQ-5, Mitigation Measure M-AQ-5 on page 1-57 is revised as follows:

Impact AQ-5: Operation of the America's Cup facilities would expose sensitive receptors to substantial concentrations of toxic air contaminants or respirable particulate matter (PM2.5).	SUM	**Mitigation Measure M-AQ-5: Clean Sources ~~Diesel Engines~~ for Temporary Power at Venues** The project sponsor shall ensure that all ~~diesel generators~~ electricity used at AC34 event and viewing locations is supplied by a public utility that provides hydropower, if available, or available alternative power supply. If use of utility-supplied electricity is infeasible, the project sponsor shall utilize natural gas or propane-powered generators, where power demands allow. If use of propane or natural gas generators is infeasible then the project sponsor shall ensure that all diesel generators at AC34 event and viewing locations shall ~~will~~ conform to a level of performance equivalent to a Tier 4 interim, or Tier 2/ Tier 3 (as applicable, depending on power rating) engine fitted with a CARB-verified diesel emissions control ~~Level 3 Verified Diesel Emissions Control (~~ (VDEC~~)~~, which would reduce diesel particulate emissions by at least 85 percent. ~~Alternatively, natural gas or gasoline-powered generators may be used in lieu of diesel generators, thus eliminating DPM emissions from generators, as feasible.~~ Should it be determined by the project sponsor that public utility supplied electricity or ~~"tiered" diesel engine~~ generators powered by natural gas or propane are unavailable or infeasible ~~gasoline-powered generators would not provide the necessary power demands required~~, this lack of availability or infeasibility must be demonstrated to the satisfaction of the Environmental Review Officer, indicating that the project sponsor has complied with this mitigation measure to the extent feasible and why full compliance with the mitigation measure is infeasible.

As discussed in Response AQ-5, Mitigation Measure M-AQ-10a and M-AQ-10b are added on page 1-58 to further reduce impacts;

Impact AQ-10: Construction of the James R. Herman Cruise Terminal and Northeast Wharf Plaza would result in emission of criteria pollutants and precursors that would violate an air quality standard or contribute substantially to an existing or projected air quality violation.	SUM	**Mitigation Measure M-AQ-2a: Construction Vehicle Emissions Minimization** **Mitigation Measure M-AQ-2b: Off-Road Construction Equipment** **Mitigation Measure M-AQ-2c: Off-Road Construction Equipment - Electricity Use**

Impact AQ-10 (cont.)		**Mitigation Measure M-AQ-2d: Off-Road Construction Equipment - Best Management Practices** **Mitigation Measure M-AQ-2f: Fuels for Off-Road Construction Equipment** **Mitigation Measure M-AQ-4d: Return Pier 27 to the Port Within One Month after Completion of the Match for Reconnection of Shoreside Power** **Mitigation Measure M-AQ-4e: Long-term Shoreside Power at Pier 70**

City staff has revised EIR page 1-59, Impacts AQ-19 and AQ-20, as follows to incorporate project updates:

Impact AQ-19: Construction of the Pier 27 Shed Variant would result in emission of criteria pollutants and precursors that would violate an air quality standard or contribute substantially to an existing or projected air quality violation.	Pier 27 Shed Variant: SUM	**Mitigation Measure M-AQ-2a: Construction Vehicle Emissions Minimization** **Mitigation Measure M-AQ-2b: Off-Road Construction Equipment**
Impact AQ-20: Construction of Pier 27 Shed Variant would expose sensitive receptors to substantial concentrations of toxic air contaminants or respirable particulate matter (PM2.5).	Pier 27 Shed Variant: SUM	**Mitigation Measure M-AQ-2a: Construction Vehicle Emissions Minimization** **Mitigation Measure M-AQ-2b: Off-Road Construction Equipment**

City staff has revised EIR page 1-60, Impacts C-AQ-1 through C-AQ-3, as follows to incorporate project updates:

Impact C-AQ-1: The proposed AC34 project, in combination with other past, present, and reasonably foreseeable future projects, would result in significant adverse cumulative impacts on air quality.	AC34 Project: SUM	**Mitigation Measure M-AQ-2a: Construction Vehicle Emissions Minimization** **Mitigation Measure M-AQ-2b: Off-Road Construction Equipment Mitigation** **Mitigation Measure M-AQ-2c: Off-Road Construction Equipment - Electricity Use** **Mitigation Measure M-AQ-2d: Off-Road Construction Equipment - Best Management Practices** **Mitigation Measure M-AQ-2e: Off-Road Construction Equipment - Engine Standards for Harbor Craft Used in Construction** **Mitigation Measure M-AQ-2f: Fuels for Off-Road Construction Equipment** **Mitigation Measure M-AQ-4a: Emission Controls for Race-Sponsored Spectator and Support Vessels** **Mitigation Measure M-AQ-4b: Temporary Shoreside Power for Large Private Yachts at Pier 27** **Mitigation Measure M-AQ-4c: Alternative Low-Emissions Fuels for Large, Private Yachts and Race-Sponsored Vessels**

Impact C-AQ-1 (cont.)		**Mitigation Measure M-AQ-4d: Return Pier 27 to the Port Within One Month after Completion of the Match for Reconnection of Shoreside Power** **Mitigation Measure M-AQ-4e: Long-term Shoreside Power at Pier 70** **Mitigation Measure M-AQ-5: Clean Sources ~~Diesel Engines~~ for Temporary Power at Venues**
Impact C-AQ-2: The proposed Cruise Terminal project, in combination with other past, present, and reasonably foreseeable future projects, would result in significant adverse cumulative impacts on air quality.	Cruise Terminal Project: SUM	**Mitigation Measure M-AQ-2a: Construction Vehicle Emissions Minimization** **Mitigation Measure M-AQ-2b: Off-Road Construction Equipment** **Mitigation Measure M-AQ-2c: Off-Road Construction Equipment - Electricity Use** **Mitigation Measure M-AQ-2d: Off-Road Construction Equipment - Best Management Practices** **Mitigation Measure M-AQ-2f: Fuels for Off-Road Construction Equipment** **Mitigation Measure M-AQ-4d: Return Pier 27 to the Port Within One Month after Completion of the Match for Reconnection of Shoreside Power** **Mitigation Measure M-AQ-4e: Long-term Shoreside Power at Pier 70**
Impact C-AQ-3: The proposed Pier 27 Shed Variant, in combination with other past, present, and reasonably foreseeable future projects, would result in significant adverse cumulative impacts on air quality.	Pier 27 Shed Variant: SUM	**Mitigation Measure M-AQ-2a: Construction Vehicle Emissions Minimization** **Mitigation Measure M-AQ-2b: Off-Road Construction Equipment** **Mitigation Measure M-AQ-2c: Off-Road Construction Equipment - Electricity Use** **Mitigation Measure M-AQ-2d: Off-Road Construction Equipment - Best Management Practices** **Mitigation Measure M-AQ-2f: Fuels for Off-Road Construction Equipment**

City staff has revised EIR page 1-60, Impact C-GG, as follows to clarify the cumulative impact analysis:

Impact C-GG: The proposed projects would not generate greenhouse gas emissions at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing greenhouse gas emissions.	Both Projects: LTS	No mitigation necessary.

City staff has revised EIR page 1-62, Impact C-WI, as follows to clarify the cumulative impact analysis:

Impact C-WI: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative wind impacts.	Both Projects: LTS	No mitigation necessary.

City staff has revised EIR page 1-62, Impact C-SH, as follows to clarify the cumulative impact analysis:

Impact C-SH: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative shadow impacts.	Both Projects: LTS	No mitigation necessary.

As explained in Response RE-7, Mitigation Measure M-RE-1 on EIR page 1-63 is revised as follows:

Impact RE-1: The America's Cup facilities and events could increase the use of parks and recreational facilities such that substantial physical deterioration of the facilities could occur or otherwise result in physical degradation of existing recreational resources.	LTSM	**Mitigation Measure M-RE-1: Protection of Recreational Resources** As described in the Project Description, the *Parks Event Operations Plan* (applicable to National Park Service [NPS], Presidio Trust, California Department of Parks and Recreation [CDPR], and San Francisco Recreation and Parks Department [SFRPD]) will be prepared and implemented in support of the proposed project. Also as described in the Project Description, the City and Event Authority are coordinating with local agencies and jurisdictions (including BCDC, Marin County, Sausalito, Tiburon, and Belvedere). As the plan and agency coordination are still under development, this mitigation measure requires that the plan and ongoing agency coordination to incorporate specific elements to protect recreational resources through protection and restoration requirements. The *Parks Event Operations Plan* and the agency coordination shall each include, for their respective jurisdictions, the following measures to protect and restore recreational resources: • ***Identification of Recreational Resource Areas of Special Concern.*** Agency coordination shall include identification of recreational resource areas of special concern to land management agencies (e.g., Crissy Field picnic area near the Warming Hut) that could provide attractive spectator viewing opportunities, determination of the existing condition of resources, ~~and identify~~ identification of requirements for additional service levels at recreational facility restrooms and trash/recycling needs, and identification of any necessary agreements, such as a memorandum of understanding or memorandum of agreement, to document commitments regarding protection and restoration of recreation resource areas of special concern. • ***Crowd Control:*** The project sponsor shall ensure that crowd control volunteers and/or enforcement personnel are posted at or near the recreation resources identified to be of special concern in order to manage crowd levels at those locations. The exact number, location, and timing of the crowd control volunteers shall be determined in consultation with the appropriate land authority where the indirect impacts are anticipated. • ***Post-Event Repair:*** Following each of the 2012 and 2013 AC34 events, the project sponsor shall ensure that recreational resource areas of special concern are returned to their previously identified pre-project condition to the extent damaged by event activities, which could include trash collection, facility repairs, restroom maintenance, pavement washing, trail repair, revegetation, and resodding.

City staff has revised EIR page 1-64, Impact C-RE, as follows to clarify the cumulative impact analysis:

Impact C-RE: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative recreation impacts.	Both Projects: LTS	No mitigation necessary.

City staff has revised EIR page 1-66, Impact C-UT, as follows to clarify the cumulative impact analysis:

Impact C-UT: The proposed projects, combined with past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts on utilities or service systems.	Both Projects: LTS	No mitigation necessary.

City staff has revised EIR page 1-67, Impact C-PS, as follows to clarify the cumulative impact analysis:

Impact C-PS: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts on public services.	Both Projects: NI	No mitigation necessary.

As discussed in Response BIU-5a, Mitigation Measure M-BI-1e on page 1-70 is revised as follows:

Impact BI-1 (cont.)		**Mitigation Measure M-BI-1e: Restrictions on Fireworks and Night Lighting** In consultation with the NPS, fireworks or cannon fire will be limited to protect plovers and nesting birds on Alcatraz from harassment. Such restrictions are likely to limit where such activities are staged, or stipulate maximum allowable noise (decibels) at the Crissy Field WPA or at Alcatraz. Where exterior lights are to be left on at night, the AC34 project sponsor shall install fully shielded and downward cast lights to contain and direct light away from habitat, the sky, and Bay waters.[3]

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[3] According to the International Dark Sky Association's *Outdoor Lighting Code Handbook* (2000), a fully shielded fixture is "A light fixture constructed in such a manner that all light emitted by the fixture, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the luminaire, is projected below the horizontal."

City staff has revised EIR page 1-74, Impact C-BIa, as follows to clarify the cumulative impact analysis:

Impact C-BIa: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts on upland biological resources.	Both Projects: LTS	No mitigation necessary.

As discussed in Responses BIM-8, HY-7, HY-9c, and HY-9d, the EIR text on pages 1-77 through 1-79 is revised as follows:

Impact BI-12: The America's Cup facilities and events could have a substantial adverse effect on sensitive marine or estuarine natural communities identified in local or regional plans, policies, or regulations.	LTSM	**Mitigation Measure M-BI-12: Visiting Mariners Information** The AC34 project sponsor shall prepare as part of their Water and Air Traffic Plan information for visiting mariners as well as procedures for the dissemination of this information to visiting boaters prior to or upon arrival to San Francisco Bay for the AC34 2012 and 2013 races. This information to be made available to visiting boaters shall include, but not be limited to, information educating boat owner/operators about sensitive habitats and species in the Bay and actions they are required to implement to avoid impacts to marine resources. The plan shall also include information on how to employ environmentally sound boating practices and where to find environmental services to ensure clean boating habits. The plan shall identify marinas that are available for use by visiting mariners (e.g., marinas in San Francisco and Marin County) and provide information about the locations of environmental services that boaters in these marinas are most likely to need. Educational materials shall clearly address, in multiple languages, common sources of pollution from boats and marinas and ~~outline~~ relevant regulations and clean boating policies, and shall provide a succinct description of best management practices to prevent pollution from common sources including oil and fuel, sanitary waste, detergents, hazardous waste, and marine debris (including the use and proper disposal of oil adsorbents in power boat bilges). The visiting mariners information in the Water and Air Traffic Plan shall include details on how this information will be disseminated to visiting boaters, including but not limited to brochures, ~~or~~ pamphlets, or educational signs; AC34 websites; boating, cruising, and newspaper periodicals; social media; ~~and~~ area yacht clubs and marinas; and all AC34 mooring locations. Educational information shall be made available at waterway entry points such as boat launch ramps, marinas, yacht clubs, and ports, in partnership with appropriate agencies and where cooperation from boater facilities can be achieved. The plan shall be prepared soliciting input from and in cooperation with the National Marine Fisheries Service (NMFS), United States Coast Guard (USCG), California State Lands Commission, California Department of Fish and Game (CDFG), ~~National Park Service (NPS),~~ California Department of Parks and Recreation (CDPR), Bay Conservation and Development Commission (BCDC), State Water Resources Control Board, California Department of Boating and Waterways (DBW), the Port of San Francisco, San Francisco Estuary Partnership, ~~and~~ local organizations active in protecting Bay marine resources, and relevant industry stakeholders, including but not limited to California Harbormasters and Port Captains Association, Marine Recreation Association, Clean Marinas California

Impact BI-12 (cont.)		Program, Recreational Boaters of California, the Pacific Inter-Club Yacht Association, boat yard representatives, and local San Francisco Bay Area Yacht Clubs. Visiting Mariners Information contained within the Water and Air Traffic Plan shall include, but not be limited to the following items: • Information on the location of eelgrass beds in the Central Bay, especially Richardson Bay and adjacent to Angel, Alcatraz, and Treasure Islands and the importance of protecting and avoiding these sensitive habitats (e.g., by not anchoring in or transiting through them) • Marinas and safe anchoring and mooring locations and methods ~~in the Bay where~~ that boaters may use to dock or anchor their vessels in San Francisco Bay and in nearby bays and other waterways • Information on where boaters may safely dock dinghies and vessel tenders when coming on shore • Information on proper and legal waste handling in the Bay and facilities for onshore disposal during the AC34 activities • Information on invasive species and their impact on Bay marine ecosystems and boaters as well as ~~and preventative steps~~ best management practices developed by the AC34 Invasive Species Task Force that boaters should implement ~~take~~ to prevent the introduction or spread of invasive species into and out of the San Francisco Bay. These provisions will include but not be limited to pending and proposed regulations by state and federal agencies responsible for the control of invasive organisms and will incorporate established effective strategies such as "clean before you go." • Information on the Vessel Traffic Service for San Francisco Bay and changes that will be in place during AC34 races • Federal and state regulations prohibiting the harassment of marine mammals • Information on any buffer zones established around Central Bay islands and other Bay locations to protect sensitive bird nesting sites • ~~Information about onsite and nearby environmental services that support clean boating practices~~ Materials produced by DBW that include information about onsite and nearby environmental services that support clean boating practices (such as the locations of sewage pump outs, oil change facilities, used oil recycling centers, bilge pump outs, absorbent pad distribution and spent pad collection, and boat-to-boat environmental services) • Information regarding the importance of keeping plastic out of Bay waters • Signage regarding locations of waste collection containers posted at and adjacent to temporary docks, berthing facilities, and areas used by moored spectator vessels (10 vessels or more) developed for the AC34 events Due to the extent of berthing, mooring, and marina facilities within the Bay shoreline, the Event Authority shall coordinate with other jurisdictions with respect to waste management at secondary viewing areas, such as (but not limited to) Treasure Island,

Impact BI-12 (cont.)		Angel Island, Sausalito, Belvedere, and Tiburon. Coordination and outreach efforts with those jurisdictions would further minimize the potential for discards and pollution to enter Bay waters from private vessels. Additionally, the Event Authority could develop, as part of official AC34 event literature, maps of the marinas that show the locations of fuel docks, sewage pumpouts, portable toilets, dump stations, used oil collection services, bilge pumpouts, oil absorbent pad distribution and collection services, oil change services, solid waste recycling services, and other environmental services for boaters. The sources of information for literature and maps developed under this mitigation measure will include, as appropriate, information available through resources such as the San Francisco Estuary Partnership and California's Boating Clean and Green Campaign (including the San Francisco Bay Area Clean Boating Map) subject to agreement with the resources agencies and organizations providing input to the development of the outreach materials.

As discussed in Response BIM-7, the EIR text on pages 1-80 and 1-81 (Mitigation Measure M-BI-16, Invasive Marine Species Control) is revised as follows:

Impact BI-16: The America's Cup facilities and events could conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan for marine or estuarine resources.	LTSM	**Mitigation Measure M-BI-16: Invasive Marine Species Control** The project sponsor shall develop and implement an Invasive Species Control Plan prior to commencement of any in-water work including piers, wharfs, bulkheads, pile driving, and installation of temporary structures. The plan shall be prepared in consultation with the United States Coast Guard (USCG), RWQCB, and the Port of San Francisco. ~~other relevant state agencies.~~ Provisions of the plan shall include but not be limited to the following: • Environmental training of construction personnel involved in the removal of pier pilings, temporary floating docks, piling suspended barges, and wave attenuators, to inform them about invasive marine species in San Francisco Bay that might be attached to removed structures • Actions to be taken to prevent the release and spread of marine invasive species, especially algal species such as Undaria and Sargasso • Procedures for the safe removal and disposal of any invasive taxa observed on the removed structures prior to disposal or reuse of pilings, docks, wave attenuators, and other features • The onsite presence of qualified marine biologists to assist the contractor in the identification and proper handling of any invasive species on removed Port equipment or materials • A post-construction report identifying what, if any, invasive species were found attached to removed equipment and materials and the treatment/handling of identified invasive species.

City staff has revised EIR page 1-81, Impact C-BIb, as follows to clarify the cumulative impact analysis:

Impact C-BIb: The projects, in combination with other past, present, and reasonably foreseeable future projects, could result in significant adverse cumulative impacts on marine and estuarine biological resources.	AC34 Project: LTSM; Cruise Terminal Project: LTS	**AC34 Project Mitigation:** **Mitigation Measure M-BI-11a: Impact Hammer Pile Driving Noise Reduction for Protection of Fish** **Mitigation Measure M-BI-11b: Pile Driving Noise Reduction for Protection of Marine Mammals** **Mitigation Measure M-BI-11c: Floating Dock Night Lighting** **Mitigation Measure M-BI-12: Visiting Mariners Information** **Mitigation Measure M-BI-14: Restrictions on Low-Flying Aircraft** **Mitigation Measure M-BI-16: Invasive Marine Species Control**

As discussed in Response GE-1, the following revisions are made to Mitigation Measure M-GE-2, Site-Specific Geotechnical Investigation, on EIR page 1-82:

Impact GE-2: Construction and operation of the AC34 facilities and events could expose people or structures to substantial adverse effects related to groundshaking.	LTSM	**Mitigation Measure M-GE-2: Site-Specific Geotechnical Investigation** The project sponsor shall conduct a site-specific geotechnical investigation for piers requiring upgrading under the direction of a geotechnical engineer prior to permitting any new construction or reuse that would increase the load of the structure. The investigation shall be performed to evaluate subsurface conditions and existing structural conditions at the site, and shall evaluate the potential for geological and seismic hazards including settlement, ground shaking, ground rupture, liquefaction, subsidence, slope stability, and lateral spreading. Recommendations shall be made regarding the pile and foundation requirements, seawall stability, seismic design, and mitigation of geologic hazards, and these recommendations shall be included in the project design, subject to the review and approval by the Port of San Francisco Chief Harbor Engineer to determine compliance with the Port of San Francisco Building Code.

City staff has revised EIR page I-84, Impact C-GE, as follows to clarify the cumulative impact analysis:

Impact C-GE: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts related to geology and soils.	Both Projects: LTS	No mitigation necessary.

City staff has revised EIR page 1-88, Impact C-HY, as follows to clarify the cumulative impact analysis:

Impact C-HY: The projects, in combination with other past, present, and reasonably foreseeable future projects, could result in significant adverse cumulative hydrology or water quality impacts.	Both Projects: LTSM	**Both Projects:** **Mitigation Measure M-HY-1: Water Quality Best Management Practices**

City staff has revised EIR page 1-90, Impact C-HZ, as follows to clarify the cumulative impact analysis:

Impact C-HZ: The projects, in combination with other past, present, and reasonably foreseeable future projects, could result in significant adverse cumulative hazards and hazardous materials impacts.	Both Projects: LTSM	**Both Projects:** **Mitigation Measure M-HZ-3: Removal of Hazardous Building Materials**

City staff has revised EIR page 1-90, Impact C-ME, as follows to clarify the cumulative impact analysis:

Impact C-ME: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts on mineral or energy resources.	Both Projects: LTS	No mitigation necessary.

City staff has revised EIR page 1-91, Impact C-AG, as follows to clarify the cumulative impact analysis:

Impact C-AG: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts on agricultural or forest resources.	Both Projects: NI	No mitigation necessary.

Chapter 2. Introduction

City staff has revised Section 2.3, page 2-3, first paragraph, second sentence, as follows to correct an editorial error:

> The NOP is included as Appendix NOP~~A~~ of this EIR.

Chapter 3. Project Description

As explained in Response PD-3, the EIR text on page 3-5, after the fifth paragraph, is revised to add a sentence as follows:

> In addition to the GGNRA lands shown in Figures 3-7 through 3-10, the GGNRA maintains legislative jurisdiction offshore of GGNRA lands as well.

As explained in Response CP-4, the EIR text on page 3-6, first paragraph, is revised as follows:

> The Port of San Francisco manages approximately 7½ miles of the San Francisco Bay shoreline stretching from India Basin in the south to Hyde Street Pier in the north, totaling more than 1,000 acres. Figures 3-4 through 3-7 delineate the Port jurisdictional boundary within the vicinity of the project sites. The primary project sites and related facilities located within the Port jurisdiction consist of numerous piers, water basins, and a seawall lot, as described below, and most of these piers are within the Port of San Francisco Embarcadero Historic District, which was listed in the National Register of Historic Places in 2006. Note that the pier numbering convention used by the Port assigns odd-numbers to facilities north of the Ferry Building and even-numbers to facilities south of the Ferry Building.

As explained in Response PD-3, EIR Figure 3-7 on page 3-15, is revised to remove references to GGNRA land within SAFR land, as shown on page 13-25 of this document.

As discussed in Response PD-3, the EIR text on page 3-20, first paragraph, is revised to add the following text after the first sentence:

> The land fronting the Rincon Point Open Water Basin is located within the Rincon Point South Beach Redevelopment Project Area, under the jurisdiction of the San Francisco Redevelopment Agency (SFRA).

As discussed in Response PD-1, the EIR text on page 3-23, first paragraph, second sentence, is revised as follows:

> Spectator venues are defined as designated locations other than the site of the proposed AC Village where hospitality services and/or spectator seating accommodations are proposed as part of AC34. ~~Please see~~

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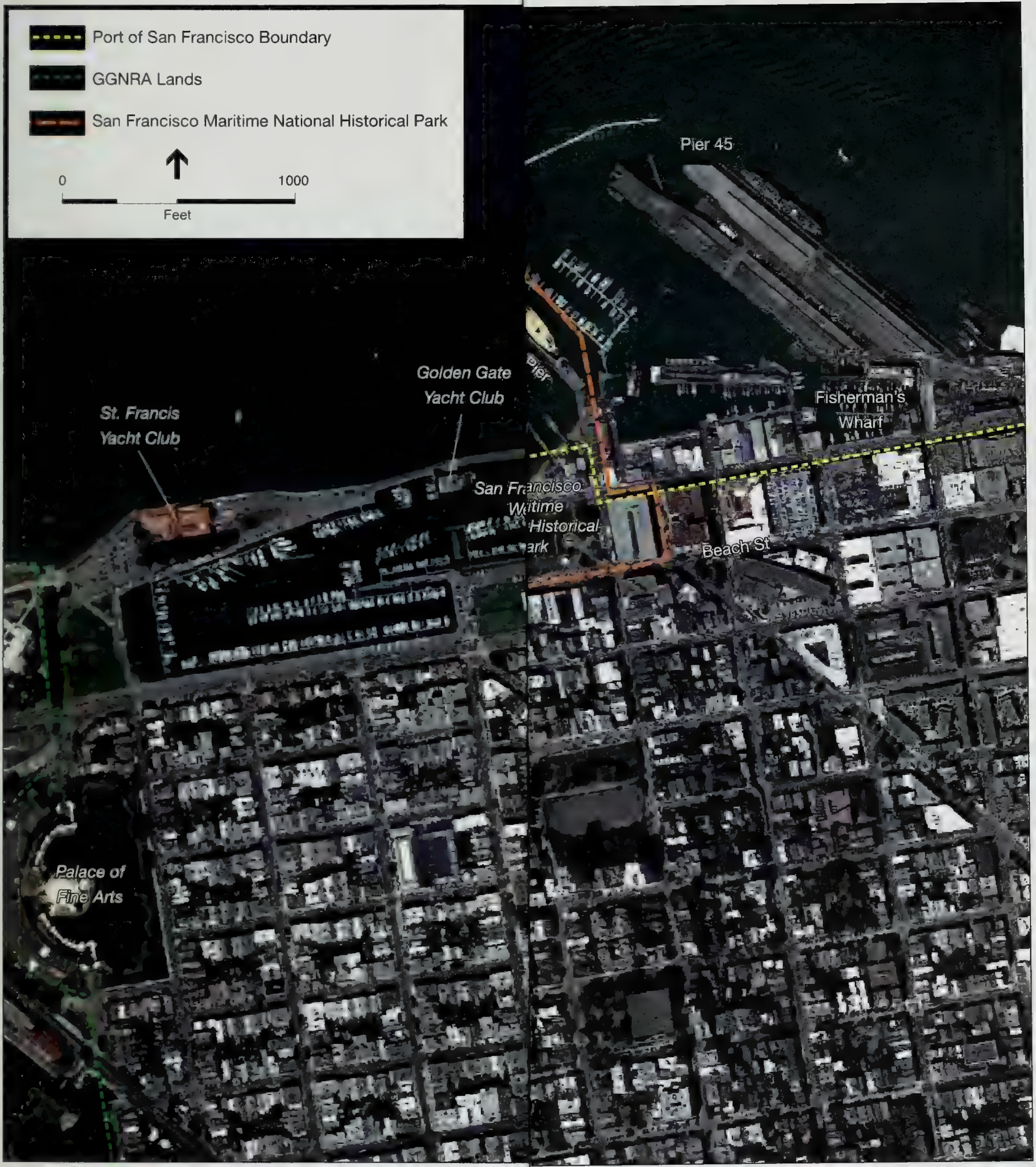
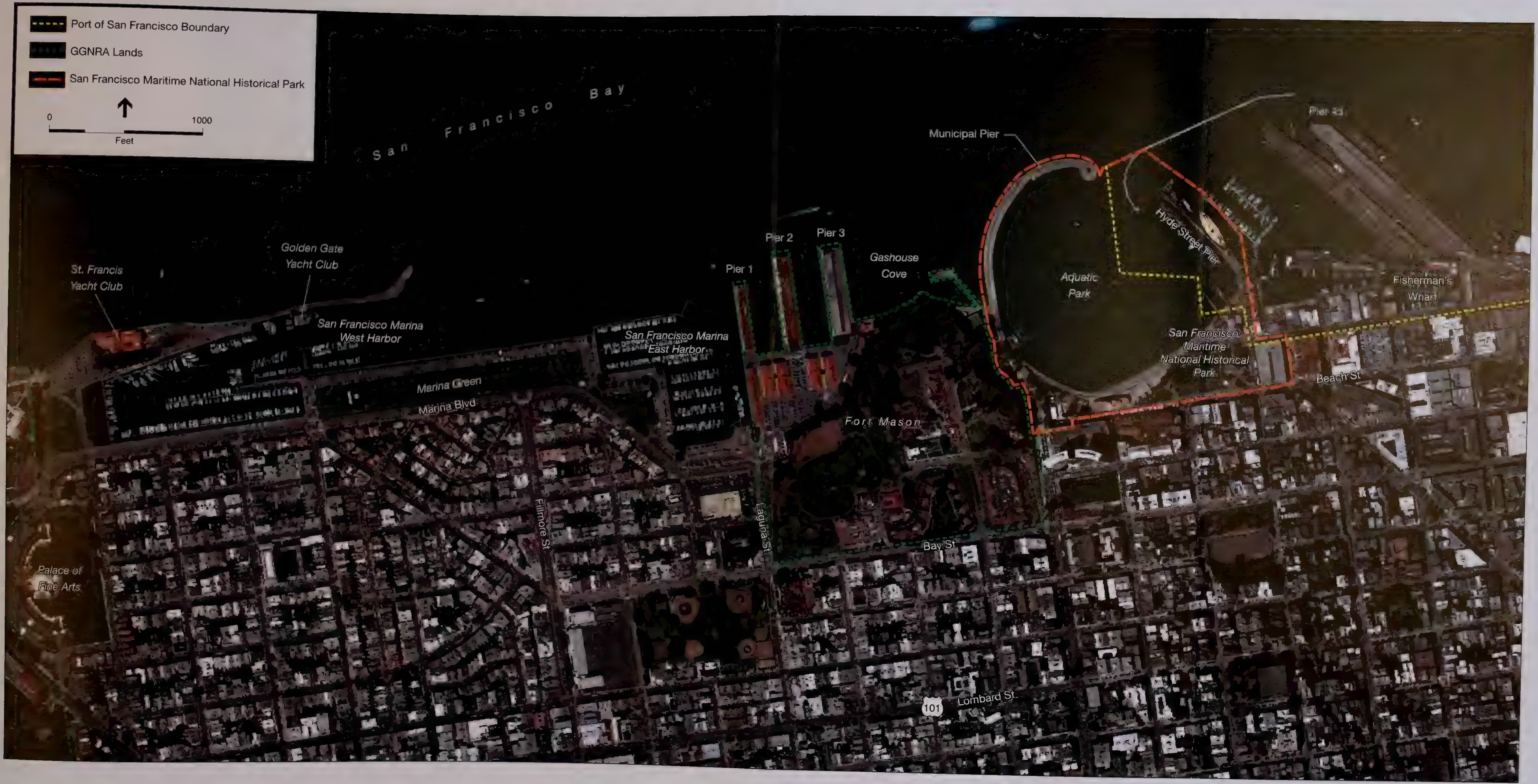


SOURCE: Google Maps; ESA

93E: AC34 / Cruise Terminal and Northeast Wharf Plaza (210317)

Figure 3-7 (Revised)
San Francisco Waterfront Map 4



SOURCE: Google Maps; ESA

Case No. 2010.0493E: AC34 / Cruise Terminal and Northeast Wharf Plaza (210317)

Figure 3-7 (Revised)
San Francisco Waterfront Map 4

As discussed in Response PD-3, the EIR text on page 3-23, end of the second paragraph, is revised to add a sentence as follows:

> The Dolphin Club and South End Rowing Club are located on SFRPD and Port land within the SAFR.

As discussed in Response PD-1, the EIR text on page 3-24, first paragraph, first full sentence, is revised as follows:

> Crissy Field also includes over 1,000 paved and unpaved parking spaces, although only approximately 400 to 500 of those parking spaces are currently available, as the balance are within the construction easement for the Doyle Drive replacement project (see Section 5.15 for a description of this cumulative project).

As discussed in Response PD-1, the EIR text in the fourth row, first column in Table 3-4 (page 3-35), Table 3-5 (page 3-36), Table 3-7 (page 3-39), and Table 3-8 (page 3-40) is revised as follows:

> Crissy Field (Crissy Field picnic area~~Center~~ to Pearce Street/ Mason Street).

City staff has revised Table 3-4 on page 3-35 of the EIR, "Spectators on Boats" section, as follows (table headings are shown for clarity) to incorporate the project updates:

	Peak Race Weekend Day in 2012	
Location	**Number of Visitors Per Day**	**Number of Visitors in Peak Hour**
Spectators on Boats		
Recreational	2,300~~11,000~~	1,380-1,840~~6,500-8,800~~
Commercial Charter	1,200~~2,000~~	720-960~~1,200-1,600~~
Subtotal Spectators on Boats	***3,500~~13,000~~***	***2,100-2,800~~7,500-10,400~~***

City staff has revised Table 3-5 on page 3-36 of the EIR, "Spectators on Boats" section as follows (table headings are shown for clarity) to incorporate the project updates:

	Peak Race Weekday in 2012	
Location	**Number of Visitors Per Day**	**Number of Visitors in Peak Hour**
Spectators on Boats		
Recreational	875~~3,800~~	525-700~~2,200-3,000~~
Commercial Charter	360~~800~~	215-290~~450-650~~
Subtotal Spectators on Boats	***1,235~~4,600~~***	***740-990~~2,650-3,650~~***

City staff has revised Table 3-7 on page 3-39 of the EIR, "Spectators on Boats" section, as follows (table headings are shown for clarity) to incorporate the project updates:

Location	Average Peak Race Weekend Day in 2013	
	Number of Visitors Per Day	**Number of Visitors in Peak Hour**
Spectators on Boats		
Recreational	5,560~~13,200~~	3,335-4,450~~8,000-10,600~~
Commercial Charter	3,000	1,500-2,400
Large Private Yachts	1,800	1,100-1,400
Subtotal Spectators on Boats	***10,360~~18,000~~***	***5,935-8,250~~10,600-14,400~~***

City staff has revised Table 3-8 on page 3-40 of the EIR, "Spectators on Boats" section, as follows (table headings are shown for clarity) to incorporate the project updates:

Location	Average Peak Race Weekday in 2013	
	Number of Visitors Per Day	**Number of Visitors in Peak Hour**
Spectators on Boats		
Recreational	900~~4,400~~	540-720~~2,600-3,500~~
Commercial Charter	450~~1,000~~	270-360~~600-800~~
Large Private Yachts	300~~900~~	160-240~~500-700~~
Subtotal Spectators on Boats	***1,650~~6,300~~***	***970-1,320~~3,700-5,000~~***

As discussed in Response PD-3, the EIR text on page 3-86, end of the first full paragraph, is revised to add the following text:

> The site is located within the Mission Bay South Redevelopment Project Area, under the jurisdiction of the SFRA.

As discussed in Response PD-3, the EIR text on page 3-86, third full paragraph, first sentence, is revised as follows:

> Teatro Zinzanni would be required to develop a design and construction proposal that would be subject to Port ~~City~~ review (and SFRA review, in the case of the Mission Bay site) for compliance with applicable zoning and design review requirements.

As explained in Response IO-5, the EIR text on page 3-93, last sentence in the first partial paragraph, is revised as follows:

> .... In the absence of any detailed proposals for marinas at this time, marina development is addressed qualitatively at a ~~program~~ conceptual level in this EIR.

City staff has revised Figure 3-39 on page 3-112 to show the location of the additional fill removal site, Pier ½, as shown on the next page.

City staff has revised page 3-113 following the last bullet on this page, as follows to incorporate the project updates:

- ***Pier ½***. Pier ½ is 24,000 square-feet in area and physically connected to Section 7 of the bulkhead wharf, a contributing resource within the Embarcadero Historic District. Pier ½ was evaluated in 2000 for the preparation of the Embarcadero Historic District nomination and was excluded from the Historic District because of its lack of significance and physical integrity. Historic maps indicate that this site was developed with a wharf that supported a large warehouse, although it is unknown whether Pier ½ is a remnant of this former wharf. The Port "red-tagged" and vacated the pier and secured it with fencing in 2008 due to structural deficiencies in the substructure and supporting piles. Fill removal at this location would result in the removal of the entire 24,000 square-foot pier deck and substructure.

City staff has revised Section 3.7.1, pages 3-115 to 3-117, as follows to incorporate the project updates:

United States Coast Guard

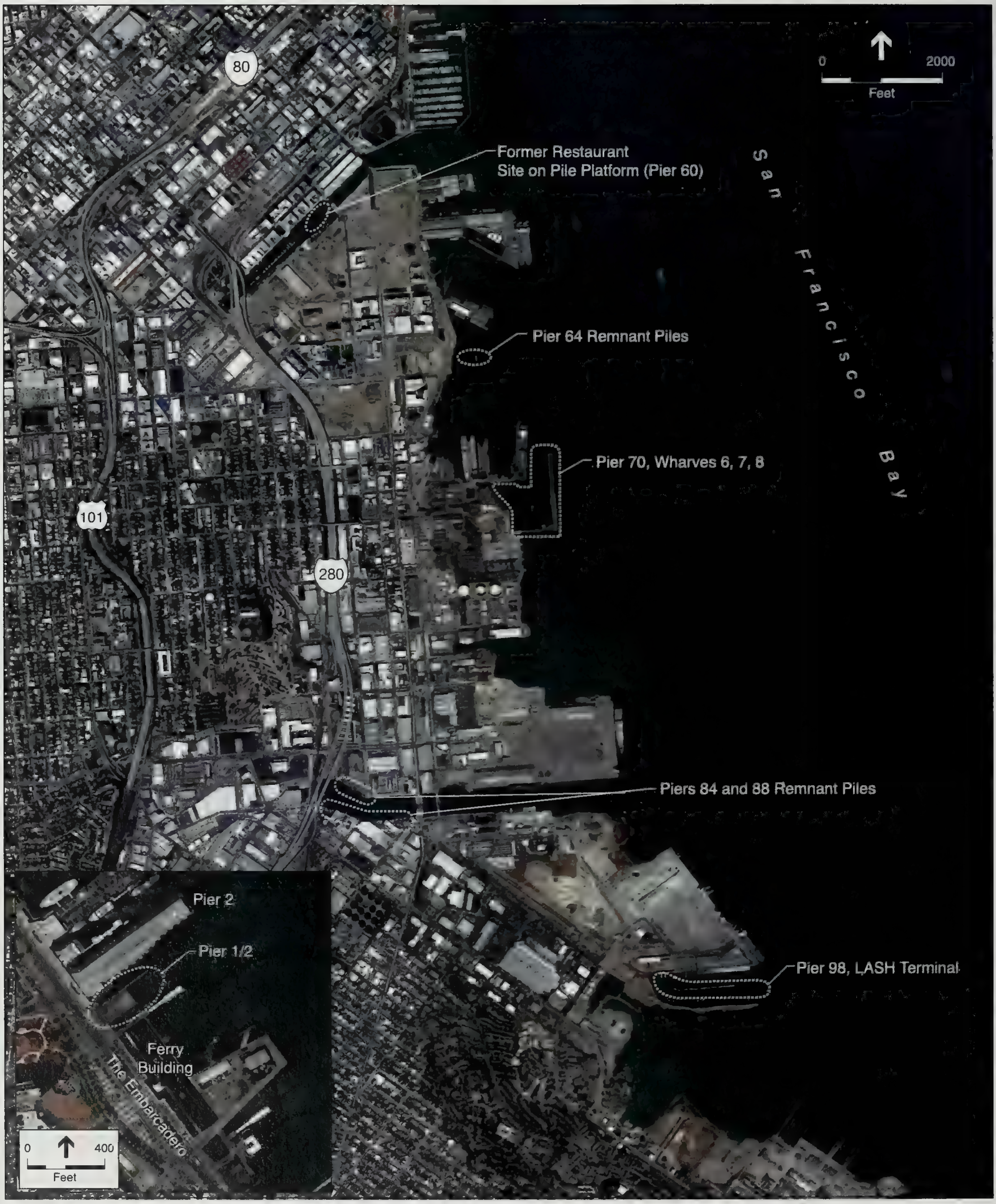
- Issue a Marine Event Permit. Captain of the Port (COTP) issues marine event permits for activities including regattas, fireworks displays, and other events held on the navigable waters of the United States. AC34 marine events, including sailing races and fireworks displays, will require a marine event permit from the COTP.
- Issue Special Local Regulation (SLR). The COTP is authorized to establish regulations in conjunction with the AC34 race area that are deemed necessary to ensure safety of life on the navigable waters. Such regulations will aim to facilitate public safety, vessel traffic safety, and protection of the environment on waters of the Bay. The SLR will be incorporated into the Code of Federal Regulations and would apply to the AC34 events.
- ~~Determination of race area requirements, including parameters to manage race events with maritime traffic, and safety rules for recreational boaters~~
- ~~Determination, review and authorization of maritime facility and vessel security plans and amendments in accordance with the Maritime Transportation Security Act of 2002 (33 CFR Chapter 1 parts 101-105) for Pier 27 cruise terminal~~

United States Customs and Border Protection

- Approval of cruise terminal design as it applies to Customs and Border Protection facility guidelines

Federal Aviation Administration

- Determination of flight area requirements



SOURCE: Google Maps; ESA

Case No. 2010.0493E: AC34 / Cruise Terminal and Northeast Wharf Plaza (210317)

Figure 3-39 (Revised)
Possible Fill Removal Sites

United States Army Corps of Engineers

- Rivers and Harbors Act, Section 10~~Clean Water Act,~~ permit to authorize structures in navigable ~~for the discharge of dredged materials into~~ Waters of the U.S.
- Marine Protection, Research and Sanctuaries Act of 1972, Section 103

United States Fish and Wildlife Service

- Consultation under Section 7 of the Federal Endangered Species Act, in conjunction with the federal permits above, ~~U.S. Army Corps of Engineers Section 404 permit~~ and the National Park Service permit~~s~~, and the U.S. Army Corps of Engineers Section 10 permit

National Marine Fisheries Service

- Consultation under Section 7 of the Federal Endangered Species Act, in conjunction with federal permits ~~the United States Army Corps of Engineers Section 404 permit~~
- Incidental Harassment Authorization under the Marine Mammal Protection Act (MMPA)

National Historic Preservation Act Section 106 Compliance

- State Historic Preservation Officer consultation, in conjunction with federal permits ~~the United States Army Corps of Engineers Section 404 permit~~

National Park Service

- Permits to use GGNRA and SAFR lands, including Crissy Field, Fort Mason, Aquatic Park, Fort Baker Pier at Cavallo Point, and Alcatraz
- Historic preservation consultation with the National Park Service, Golden Gate National Recreation Area in accordance with its Programmatic ~~Memorandum of~~ Agreement with the State Historic Preservation Office

Presidio Trust

- Any permits that may be required for necessary area closures within its jurisdiction in the Presidio~~Permits to use portions of Crissy Field within their jurisdiction~~

San Francisco Bay Conservation and Development Commission

- Approval of *San Francisco Bay Plan, San Francisco Waterfront Special Area Plan* amendments
- Approval of one or more Administrative and Major Permits for fill and uses in San Francisco Bay and the Bay shoreline

California State Lands Commission

- Consultation regarding use plan, ~~permit~~ dredging lease, and Public Trust determination

California Regional Water Quality Control Board, San Francisco Bay Region

- Section 401 Water Quality Certification~~; confirmation of compliance with~~ and any associated Waste Discharge Requirements; ~~confirmation of National Pollutant Discharge Elimination System;~~ Construction General Permit coverage and Industrial Stormwater Permit Coverage, as applicable

California Department of Fish and Game

- California Endangered Species Act Take Assessment and possible 2081 Incidental Take Permit ~~Section 2080.1 consistency determination or California Endangered Species Act Section 2081 incidental take permit~~

Bay Area Air Quality Management District

- Authority to Construct and Permit to Operate applicable facilities

San Francisco Planning Commission

- Certification of the Final EIR
- Determination of consistency with the San Francisco General Plan for the transfer of Seawall Lot 330 and any other aspects of the projects, if required

San Francisco Port Commission

- Approval of the AC34 project, Disposition and Development Agreement for AC34 venues, including improvements to Port property, and venue leases on Port property; transfer of Seawall Lot 330; approval of the Cruise Terminal project; adoption of CEQA findings and a Mitigation Monitoring and Reporting Program for each project

San Francisco Recreation and Park ~~Department/~~Commission

- Approval of special use permit for~~of~~ San Francisco Marina and Marina Green, Justin Herman Plaza, Union Square and Civic Center Plaza

San Francisco Redevelopment Agency

- Approval of any potential AC34-related temporary or permanent activities or facilities within the Rincon Point South Beach Redevelopment Area

San Francisco Board of Supervisors

- Consideration of any appeals of the Planning Commission's certification of the Final EIR
- ~~Approval of the AC34 project and a~~Adoption of CEQA findings and a Mitigation Monitoring and Reporting Program
- Approval of agreements, if any, between CCSF and Event Authority regarding responsibilities for implementing actions to stage the AC34 events
- Approval of the AC34 project, including the ~~and~~ Disposition and Development Agreement for AC34 venues, transfer of Seawall Lot 330, and the 34th America's Cup Host and Venue Agreement ~~including improvements to Port and San Francisco property~~
- Formation of Infrastructure Financing District

Chapter 4. Plans and Policies

As discussed in Response PP-3a, the first sentence of the last paragraph of page 4-3 is revised as follows to make "wildlife" one word:

> By enacting the *NPS Organic Act of 1916* (Organic Act), Congress directed the U.S. Department of the Interior and the NPS to manage units "to conserve the scenery and the natural and historic objects and wild_life therein and to provide for the enjoyment of the same in such a manner and by such a means as will leave them unimpaired for the enjoyment of future generations."

As discussed in Response PP-2b, Chapter 4, Plans and Policies, page 4-3, the second paragraph, is revised as follows:

> Due to increased concerns about the amount of mounding of dredged materials and effects on navigation, fishing, and ecological resources in the Bay, the Corps, San Francisco Bay RWQCB, BCDC, and the State Water Resources Control Board developed the *LTMS Management Plan* to address the need for improved management and alternative disposal options for dredged materials in the San Francisco Bay region. Through 2012, in-Bay disposal from all sources is limited to 1.6 million cubic yards (mcy); beyond 2012, in-Bay disposal will be reduced to 1.2 mcy. The *LTMS Management Plan* provides specific mechanisms to ensure that existing laws and regulations concerning disposal of dredged materials in the Bay are consistently applied and coordinated. Through the approval process with the Dredged Material Management Office, the dredging required for the AC34 events would adhere to the LTMS Management Plan.

As explained in Response PP-3a, the following text is inserted in Chapter 4, page 4-5, before the heading "General Management Plan – Golden Gate National Recreation Area":

NPS Directives Order-12

The National Environmental Policy Act (NEPA), passed by Congress in 1969 and effective January 1, 1970, established the environmental policies of the United States and mandated that every federal agency prepare a study of the impacts of federal actions having a significant effect on the environment. NEPA also created the Council on Environmental Quality (CEQ), which is an agency of the President's office that is the caretaker of NEPA. CEQ published NEPA regulations in 1978 (40 CFR 1500–1508) and added to them in 1981. Federal agencies are to review and update these regulations as necessary.

Directives Order-12 (DO-12) is the most recent update of the National Park Service's NEPA handbook, and most of the sections derive from the CEQ or Department of the Interior NEPA guidelines. DO-12 provides an overview of the NEPA process and required steps for proper environmental review pursuant to NEPA. The AC34 events are subject to NEPA and are undergoing NEPA environmental review through a separate, concurrent process.[4]

Golden Gate National Recreation Area (GGNRA) Enabling Legislation

In 1972, Congress established the GGNRA through enabling legislation "to preserve for public use and enjoyment certain areas of Marin and San Francisco Counties, California, possessing outstanding natural, historic, scenic and recreational values." The legislation allocated $120 million for land acquisition and development. It granted the Secretary of the Interior authority to manage resources in a manner that would provide for "recreation and educational opportunities consistent with sound principles of land use planning and management." The legislation established the boundaries of the GGNRA, granted land acquisition and disposal authority, and set forth use, occupation, and/or transfer obligations of Fort Baker, Baker Beach, Crissy Field, Fort Mason, Alcatraz, and other lands from the Secretary of the Army and Navy to the Secretary of the Interior.

San Francisco Maritime National Historical Park Act of 1988

The San Francisco Maritime National Historical Park Act of 1988 established the San Francisco Maritime National Historical Park (SAFR) as a unit of the National Park System. The act transferred vessels and maritime artifacts to SAFR from the GGNRA, and GGNRA boundaries were revised to exclude SAFR. The act permits the Secretary of the Interior to lease park property, including vessels; charge entrance fees to ships; and acquire land within the park. It also authorizes the Secretary to charge entrance fees to the ships.

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[4] National Park Service, *The DO-12 Handbook*, available online at http://planning.nps.gov/document/do12handbook1.pdf, no date.

Code of Federal Regulations, Title 36, and Superintendent's Compendium of Federal Regulations

The regulations that govern all national parks, including Golden Gate National Recreation Area (including Alcatraz Island), Fort Point National Historic Site, and Muir Woods National Monument, are encompassed in Title 36 of the Code of Federal Regulations (CFR). The regulations "establish the proper use, management, government, and protection of persons, property, and natural and cultural resources within areas under the jurisdiction of the National Park Service." The regulations also allow the Superintendent to promulgate local regulations specific to each national park The GGNRA 2010 Superintendent's Compendium establishes schedules for visiting hours, public use limits, and closures.

Site-Specific GGNRA Plans

Additional site-specific GGNRA plans are described below for informational purposes.

Crissy Field Plan / Environmental Assessment / FONSI

The Crissy Field Plan, according to the summary published in 1996, was formulated to restore the tidal marsh, improve the shoreline promenade, and restore the airfield and beach.[5] These improvements were completed in 2001. The Crissy Field Plan did not envision current planning efforts, such as AC34 spectator venues. For example, the Crissy Field Plan stated that Crissy Field would no longer host large events. Therefore, the size of spectator crowds on peak race days may conflict with the Crissy Field Plan.

1993 Alcatraz Development Concept Plan EA / FONSI

Management and use of Alcatraz Island has been guided by a Development Concept Plan (DCP), which was completed in 1993. An Environmental Assessment (EA) was prepared to evaluate the DCP's effects on historic resources, biological resources, human health and safety, and park visitation, among other considerations. A Finding of No Significant Impact (FONSI) was approved in 1993. Mitigation measures to safeguard breeding bird populations, included timing and location restrictions for proposed construction activities, were foreseen at that time and approved in the adopted EA. The document did not address the hosting of evening private events inside the cell house.

Alcatraz Island Historic Preservation and Safety Construction Program EIS / ROD

The NPS completed an Environmental Impact Statement (EIS) for the Alcatraz Island Historic Preservation and Safety Construction Program in 2002. The purpose of that program was to protect the public health and safety of the visitors to Alcatraz, preserve the National Historic Landmark District, and implement the needed repairs in a manner that minimizes impacts on biological resources. The project is being completed in phases. The document did not address the hosting of evening private events inside the cell house, which will be analyzed in the concurrent NEPA process for the AC34 project.

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[5] National Park Service (NPS) and Golden Gate National Parks Association, *Summary of the Proposed Crissy Field Plan: Nature, History, and Recreation: Fulfilling the Promise of Crissy Field*, June 1996.

As explained in Response PP-1, page 4-13, last paragraph, is revised as follows:

> ***Northeast Wharf Plaza.*** The SAP requires the creation of a two-acre "Northeast Wharf Plaza" as a "new, major, destination plaza between Piers 23 and 29 along the Embarcadero, opening up views from Lombard Street and the Embarcadero to the Bay, Yerba Buena and Treasure Islands, and the Bay Bridge~~.~~" (SAP pages 30–32).[11A] To create this plaza, approximately 56,000 square feet of the Pier 27 shed is to be removed. According to the SAP, the plaza "should provide for water-side uses, such as temporary, small craft tie-ups and hand-held boat launching" and "create connections with the water's edge such as ramps, stairs or docks that allow users to easily access the Bay." The SAP requires implementation of the Northeast Wharf Plaza in two phases, triggered by major development of Piers 27–31: Phase 1 requires demolition of a portion of the Pier 27 shed and initial level of plaza improvements prior to completion of major development of Piers 27-31; Phase 2 requires completion of Northeast Wharf Plaza in 15 years if necessary grant funding is available, or 20 years if necessary grant funding is not available (SAP page 47).

As discussed in Response PP-1, page 4-14, beginning of the third paragraph, is revised as follows:

> The SAP requires the creation of four Open Water Basins as "focal points of public use and enjoyment of the Northeastern Waterfront" and to "enhance the ecological health of the Bay and to facilitate needed public recreation and access opportunities~~.~~ (SAP pages 24–26).[11B] They are intended to "provide new and substantial Bay views from the boundary piers framing the Open Water Basins," and are supported by adjacent major waterfront open spaces.

As discussed in Response PP-3b, the following text is added in Chapter 4, page 4-16, before the header "San Francisco Bay Subtidal Habitat Goals":

Richardson Bay Special Area Plan

BCDC's Richardson Bay Special Area Plan was adopted in 1984 as an inter-jurisdictional plan of Belvedere, Mill Valley, Sausalito, Tiburon, Marin County, and BCDC to protect the natural resources, use for water and water-oriented purposes, restoration of degraded tidal wetlands, and provision of public access along its shoreline. The plan sets forth policies to protect open water marshes and harbor seal haul-out areas. It advocates for urban runoff control and design of sewage treatment facilities to accommodate wet weather flows, as well as erosion and sediment control measures. In addition, the plan provides recommendations for navigational aids, tidal restoration and marsh enhancement, maintenance dredging, and soils

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[11A] San Francisco Bay Conservation and Development Commission, *San Francisco Waterfront Special Area Plan*, available online: http://www.bcdc.ca.gov/pdf/planning/plans/sfwsap/SFWSAP_Final.pdf.

[11B] ibid.

disposal. The plan advocates for unified public access along the periphery of the Bay, protection of sandy beaches, and provision of public amenities. Specifically, the plan states that Richardson Bay should be designated as a No Discharge Area by EPA, that local governments should petition the Coast Guard to establish anchorage and mooring areas, and that marsh and tidal circulation areas should be maintained or restored. The proposed project would not conflict with the provisions of the plan.[11c]

Chapter 5. Environmental Setting, Impacts and Mitigation Measures

Section 5.1 Impact Overview

City staff has made the following revisions to page 5.1-9 of the EIR, first paragraph, last two sentences to incorporate the project updates:

> The total number of boats expected during the AC34 2012 event ranges from about 130~~655~~ to 340~~1,810~~, carrying from about 1,235~~4,600~~ to 3,500~~13,000~~ passengers. The total number of boats expected during the AC34 2013 event ranges from about 150~~790~~ to 880~~2,280~~, carrying from about 1,650~~6,300~~ to 10,360~~18,000~~ passengers.

City staff has made the following revisions to Table 5.1-2 on page 5.1-9 in Section 5.1, Impact Overview, to incorporate the project updates:

TABLE 5.1-2 [REVISED]
ESTIMATES OF WATER-BASED SPECTATORS IN THE CENTRAL BAY ON AC34 RACE DAYS, 2012 AND 2013[a, b]

Type of Boat	Estimated Number of Boats	Estimated Average Passengers per Boat	Total Number of Passengers
Recreational	2012: 125-330~~650 – 1,800~~ 2013: 135-800~~750 – 2,200~~	7 / 2[c] ~~6~~	2012: 875 2,300~~3,800 – 11,000~~ 2013: 900-5,560~~4,400 – 13,200~~
Commercial charter	2012: 3 - 8~~5 – 13~~ 2013: 3~~7~~ – 20	120 - 150[d] 150	2012: 360 – 1,200~~800 – 2,000~~ 2013: 450~~1,000~~ – 3,000
Large private yachts	2012: 0 2013: 10~~30~~ – 60	30	2012: 0 2013: 300~~900~~ – 1,800
Total	**2012: 130 - 340 ~~655 – 1,810~~** **2013: 150 - 880~~790 – 2,280~~**		**2012: 1,235 - 3,500~~4,600 – 13,000~~** **2013: 1,650 - 10,360~~6,300 – 18,000~~**

[a] The range represents average peak weekday race days to average peak weekend race days.
[b] Numbers are rounded.
[c] Average capacity for motorized pleasure craft and sailboats is 7; average capacity for non-motorized craft is 2.
[d] Average occupancy per commercial charter for 2012 average peak race weekday is 120 and average peak race weekend day is 150.

SOURCE: AECOM, 2011. *Analysis of Visitation for America's Cup 34,* ~~Draft Report,~~ June 17, 2011; AECOM, 2011. Revised Spectator Boat Estimates, November, 2011

[11c] Richardson Bay Special Area Plan, available online: http://www.bcdc.ca.gov/pdf/planning/plans/rbsap/rbsap.pdf, April 1984.

As discussed in Response IO-5, EIR text on page 5.1-11, in the second full paragraph, is revised as follows:

> As described in Chapter 3, the proposed AC34 project includes components for which site-specific details have not yet been developed, namely the Event Authority's long-term development rights under future Disposition and Development Agreements (DDAs) provided for under the AC34 Host Agreement. Because no specific long-term development proposal is defined at this time, this EIR analyzes the long-term development options at a conceptual level in order to ensure comprehensive environmental review of the AC34 project as ~~a whole~~ envisioned in the Host Agreement.

As discussed in Response TR-12, the EIR text in Table 5.1-4 on page 5.1-18, is revised as follows:

Project Name (Jurisdiction, if applicable)	Project Summary
Van Ness Avenue Bus Rapid Transit Project (BRT)	Would run two miles along Van Ness Avenue between Mission and Lombard Streets. Typical BRT improvements include travel lanes for exclusive transit use; wider sidewalks at bus stops; traffic signal priority for transit vehicles; full stations with passenger amenities; multi-door boarding at sidewalk-level platforms; pre-paid boarding areas; and real-time information systems. This project is currently under environmental review by the Transportation Authority with construction scheduled to start in the Fall of 2013, following the completion of all AC34 race activities.

Section 5.2 Land Use

As explained in Response LU-1, the EIR text on page 5.2-8, end of second full paragraph, is revised as follows:

> Ferries to Tiburon, Sausalito, Angel Island, Larkspur, Vallejo, Oakland, and Alameda depart from the Downtown Ferry Terminal on the west side of the Ferry Building.

As discussed in Response LU-1, the heading text on page 5.2-11 is modified as follows:

> ***Northern Shore of San Francisco, SAFR, and GGNRA***

As explained in Response LU-1, the EIR text on page 5.2-12, third paragraph, is revised as follows:

> The Presidio of San Francisco is a historic military ~~installation~~ post and today is a national park site ~~in the City of San Francisco~~. It contains a total land area of 1,480 acres that includes 500 historic buildings, a collection of coastal defense fortifications, a national cemetery, a saltwater marsh and ecological reserve, forests, beaches, native plant habitats, coastal bluffs, and hiking and biking trails. The Presidio also includes a wide range of commercial, institutional, and creative uses, such as a museum, schools, gift shops, restaurants, medical services, golf course, national cemetery, bank, residential housing, and

> digital arts offices. The Presidio is under exclusive federal jurisdiction and therefore is not subject to state and local land use plans and policies. Lacking any jurisdiction, the City's zoning map indicates that the zoning districts for the Presidio are mapped as a P (Public) District and an OS (Open Space) Height and Bulk District.

As explained in Response LU-1, the EIR text on page 5.2-12, last paragraph, is revised as follows:

> None of Area B is proposed for direct use by the America's Cup Event Authority, although spectators ~~may~~ must traverse this area to access the Crissy Field Shoreline. ~~The~~ Various buildings within Area B and the proximity of Crissy Field are occupied by a sporting goods store, local university, rock-climbing gymnasium, indoor trampoline park, swim school, and sport shop. ~~sports medicine facility.~~

As discussed in Response LU-1, the following text is revised at the top of page 5.2-13, before the "Impact of America's Cup" heading:

> ***Crissy Field.*** Area A of the Presidio, known as "Crissy Field," is located between Mason Street and the San Francisco Bay. This area comprises more than 100 acres of scenic waterfront property and remains under the jurisdiction of GGNRA. Crissy Field has undergone a major habitat restoration that included the conversion of approximately 22 acres into a tidal marsh. The area also includes large open grassy fields on the historic airfield, a warming hut, marine sanctuary center, wildlife protection area, wide multiuse path for walkers and bikers, picnic and barbecue areas, and more than 1,000 paved and unpaved parking spaces. Crissy Field is zoned P (Public) on the City's Zoning Map. The field is used as a passive and active recreational area for residents and tourists in the City. Crissy Field is proposed to be an America's Cup primary spectator venue in both 2012 and 2013.

As explained in Response LU-1, the following text is revised at in the middle paragraph of page 5.2-14:

> As shown in Chapter 3, the San Francisco Maritime National Historic Park (SAFR) extends from the west end of Fisherman's Wharf, starting west of Hyde Street, to Fort Mason just west of Van Ness Avenue. It includes areas within both Aquatic Park (which are zoned for Public Use) and the Port of San Francisco (which are zoned for Community Business uses). Aquatic Park includes a beach, concrete stadium, grassy lawns, and the horseshoe-shaped Municipal Pier extending into the Bay. It is home to the Dolphin Club and the South End Rowing Club, which swim in Aquatic Park, row in the Bay and on Lake Merced, play in tournaments, and participate in organized swims and races. The National Park Service Pacific West Information Center is currently located in the SAFR visitor center on the corner of Hyde and Jefferson Streets. The Aquatic Park Historic District is a National Historic Landmark and is listed on the National Register of Historic Places. South of SAFR are residential uses of mixed density, and east of SAFR is Fisherman's Wharf, described above.

As discussed in Response LU-6, the EIR text on page 5.2-25, last paragraph, and page 5.2-26, first paragraph, is revised as follows:

> These uses would be a departure from the open space recreational use of Crissy Field during typical days when a major event, such as Fleet Week, is not taking place. Instead, these uses would be similar to those of major events, but intensified and over a longer period of time. The number of users at Crissy Field during this period of time could conflict with the Crissy Field Plan, as discussed in Chapter 4. In effect, Crissy Field's open recreational uses would be limited to the areas not occupied by these temporary uses. During days of peak attendance, it is likely that typical recreational uses could not be accommodated within Crissy Field, due to the numbers of spectators that would occupy the area. This would be considered a minor, temporary change in use. Please see Section 5.11 for an analysis of impacts to recreational resources.

As discussed in Response LU-5, the EIR text on page 5.2-26, end of the fourth full paragraph, is revised as follows:

> The proposed temporary uses would require permits from ~~GGNRA~~SAFR and would not be considered a major change in use.

As discussed in Response LU-3, the EIR text on page 5.2-27, end of the fourth full paragraph, is revised as follows:

> Relocation of the dinner theater to either of these locations would change the existing land use. ~~Both moves~~ Neither move would require a zoning change to accommodate the dinner theater use.

As discussed in Response LU-2, the following text is added at the top of page 5.2-28, before the "Impact of America's Cup" heading:

> As described above, Central San Francisco Bay is a major intersection of shipping, recreational, and commuter ferry routes. Shipping and dredged materials disposal are undertaken in specific, designated locations. The proposed project would not change these designations or otherwise permanently alter these uses. However, it is possible that ferry service, commercial shipping, or dredged materials disposal could be temporarily restricted during race events. Such restrictions would be coordinated in advance with applicable agencies, pursuant to United States Coast Guard procedures. These limitations would be temporary in nature and would not constitute significant changes in use.

As discussed in Response LU-6, the following paragraph is inserted before the first full paragraph on page 5.2-30:

> Regarding impacts related to conflict with NPS plans and policies, crowd sizes in excess of those envisioned in the Crissy Field Plan would result in a land use impact to the extent that they result in physical environmental impacts. The physical impacts of such crowds on

Crissy Field itself are analyzed in other sections of this document, specifically Section 5.5, Cultural and Paleontological Resources; Section 5.11, Recreation; Section 5.14, Biological Resources; and Section 5.16, Hydrology and Water Quality. As discussed in those sections, impacts on Crissy Field would be less than significant with implementation of identified mitigation measures, which set performance standards to manage impacts. These mitigation measures would be supplemented, as determined by the NPS through the NEPA process and through the NPS special event permit, to meet additional NPS requirements outside the scope of CEQA.

As discussed in Response PP-1, Chapter 5, Section 5.2, page 5.2-35, first full sentence is revised as follows:

BCDC would consider the merits of the proposed SAP amendments under the agency's policy and regulatory authority.~~ as part of its policy authority~~

City staff has revised EIR page 5.2-38, Impact C-LU, as follows to clarify the cumulative impact analysis:

Impact C-LU: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative land use impacts. (Both Projects: Less than Significant)

Other major land use changes would be expected to occur in or near the project vicinity~~,~~ ~~which extends west to Battery Street and south~~ along The Embarcadero and San Francisco's northeast waterfront area~~to Mission Street~~. The table listing cumulative projects can be found in Section 5.1.

City staff has revised EIR page 5.2-39, second paragraph, as follows to clarify the cumulative impact analysis:

The projects would result in a different built environment compared to the existing character of the site and vicinity but would develop new uses that would be the same or compatible with other development in the project vicinity. As noted, above, the projects would increase recreational, entertainment, maritime, and non-residential densities at the project sites and would be compatible with the existing land use character. The transition in scale between adjacent neighborhoods and the project sites, and the varied range of proposed uses, would not result in a substantial adverse change in the existing land use character. Since development of cumulative projects within the defined geographic context would not result in an adverse impact on existing land use character, there would be no cumulative impact to which the projects could contribute. Therefore, for both the AC34 and Cruise Terminal projects, the cumulative impact would be *less than significant*.

Mitigation: Not required

Section 5.3 Aesthetics

As discussed in Response AE-3, EIR the text on pages 5.3-9, last paragraph, is revised as follows:

> Fort Mason is a former U.S. Army post and military port facility located directly on San Francisco Bay and a National Register-listed historic district. Fort Mason includes Lower Fort Mason, also known as the San Francisco Port of Embarkation and is part of the GGNRA. ~~, is another National Historic Landmark and part of t~~The San Francisco Maritime National Historic Park (SAFR) headquarters are located in Building E in Fort Mason Center. GGNRA's headquarters are located in Building 201 in Upper Fort Mason.

As discussed in Response AE-3, the EIR text on page 5.3-12, second paragraph, is revised as follows:

> Crissy Field was once a paved U.S. Army airfield and became part of the GGNRA in the 1990s. ~~GGNRA converted the airfield into~~ A 22-acre ~~of~~ portion of the airfield was converted to tidal marsh habitat (see Section 5.14, Biological Resources, for further description of the tidal marsh) and the remainder is a large grass field with interpretive paths. ~~and over~~ Crissy Field also includes over 1,000 paved and unpaved parking spaces, although only approximately 400 to 500 of those parking spaces are currently available, as the balance are within the construction easement for the Doyle Drive replacement project. Many of historic hangars and warehouse spaces around Mason Street, the perimeter access road, have been converted to activity and retail centers. Other ~~U~~uses in Crissy Field include the Crissy Field Center, cafés, gift shops and related recreational facilities. The beach area at the east end of Crissy Field is popular for walkers, joggers, cyclists, sailboarders and kite surfers. The Bay Trail separates the beach areas from the grass of Crissy Field, while providing a lateral connection from the Golden Gate Bridge to Marina Green and points farther east including The Embarcadero. The Presidio Trust manages an inland area of the Presidio that includes a portion of Crissy Field.

As discussed in Response AE-4, the fourth paragraph on page 5.3-13 in the EIR is revised as follows to clarify the location and role of the Bay Trail in linking independent venues in the setting:

> As described in Section 5.1 and shown in Figure 5.1-1, secondary viewing areas are those where people may go to observe the races without any AC34 programming or added attractions. People may already be in these locations doing other things, or they may intentionally go there because they know where to go for particularly good views. In these locations people will appear to congregate spontaneously to watch the races. Many of these areas are small, often filled with tourists and sometimes ill equipped to handle large crowds. Linking many of the secondary viewing areas is the San Francisco Bay Trail. Near the AC34 race course, a 10-mile section of the Bay Trail alignment follows San Francisco Bay through Sausalito, Fort Baker, across the Golden Gate Bridge, through the Presidio, along Crissy Field, past the Marina, through Fort Mason and over to Aquatic Park, past Fisherman's Wharf and Pier 39, and continuing along The Embarcadero promenade to Piers 30-32 and beyond.

As discussed in Response AE-4, page 5.3-13, bottom of the page, is modified as follows:

- ***Golden Gate Bridge Walkways.*** The Golden Gate Bridge walkways, which are also a portion of the San Francisco Bay Trail, are highly used by pedestrians and bicycles. The Bicycle Safety Study for the Golden Gate Bridge[3a] found that bicyclists most often use the west side of the bridge, where as many as 1,000 bicyclists an hour may cross during peak weekend use. Pedestrians typically use the eastern walkway (with views of the race course and the city), where an average of approximately 1,400 pedestrians congregate on a Sunday afternoon from 2:00 to 3:00 p.m. Large volumes of pedestrians enter the bridge around 10:00 a.m. and volumes remain high until 7:30 p.m. Both pedestrian and bicycle volumes are highest during the afternoon, typically at the south end. The narrow width of the walkway and combined use with cyclists limit pedestrian traffic flows at the south end near the toll plaza.

- ***Golden Gate Bridge Toll Plaza.*** At the south end of the Golden Gate Bridge are facilities for transit, parking, cycling, trails, and tourists. The area is congested and sidewalks to the bridge are adjacent to traffic, narrow, and ~~It is~~ often crowded with visitors. Short trails are available to an overlook that provides views of the bridge and the northern Bay, where the race course would be. Much of the area surrounding the overlook is constrained by sensitive habitat.

As discussed in Response AE-3, the EIR text on page 5.3-17, third and fourth bullets, are revised as follows:

- ***Fort Baker and Cavallo Point.*** East of the Golden Gate Bridge and near water level, Fort Baker occupies a small valley looking directly at the City of San Francisco, but panoramic views of the water are limited by the hillsides. A portion of Fort Baker was recently ~~was~~ converted from an early 1900s Army post to the upscale Cavallo Lodge of San Francisco. The Children's Discovery Museum is near the shoreline and the Bay Trail passes through on East Road. The United States Coast Guard Station~~, the Golden Gate~~ and the Presidio Yacht Club~~s~~ are located at Fort Baker's Horseshoe Cove. The Fort Baker Pier on the western edge of Horseshoe Cove, is at the base of the Golden Gate Bridge and is proposed as an official AC34 viewing venue for private events.

- ***East Road Pullouts.*** East Road is a scenic road with views out to Angel Island and San Francisco across the Bay. The road connects Fort Baker to Sausalito. It has recently been renovated by the Park Service and provides a designated paved (Class II) pathway for the Bay Trail. Pullouts have been paved, park benches and picnic tables installed and vegetation restored. Occasional trail access is provided to non auto-oriented lookouts in the Fort Baker area~~such as Cavallo Point~~. Please see **Figure 5.3-6, Photos B3** and **B4**.

As discussed in Response AE-3, the EIR text on page 5.3-18, is revised as follows:

E.2. View from ~~Gas House Cove~~ McDowall Road across Fort Mason to the Golden Gate

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[3a] Alta Planning and Design, Bicycle Safety Study for the Golden Gate Bridge, prepared for Hanson Bridgett LLP, April 15, 2011.

As discussed in Response AE-3, EIR text on page 5.3-19, third paragraph is revised as follows:

> ***The Presidio of San Francisco*** has a variety of locations from which to view the Bay. The Coastal Trail now passes along the top of the Presidio Bluffs, and with the recent tree removal in this vicinity, excellent views toward the Golden Gate Bridge and the Bay are available. The Batteries to Bluffs Trail also provides excellent views of the Golden Gate Bridge and the water beneath. The Parade Grounds provide views to the water but panoramic views are constrained by buildings and separated from the Bay by Doyle Drive. ~~There are fleeting views of the Bay and the proposed AC34 race course from cars while driving Doyle Drive.~~ The best views of the Bay, however, are from two small overlooks on Lincoln Boulevard just above Crissy Field as seen in **Figure 5.3-7**, **Photo E1**. These stops are popular among tourists and very little space is available to accommodate a crowd. ***Gas House Cove*** is between Fort Mason and Aquatic Park and is connected by a pedestrian path. The walkway provides views of San Francisco Bay, Fort Mason, and the proposed AC34 race course as seen in **Figure 5.3-7**, **Photo E2**. ***China Beach and Baker Beach*** are to the west of the Golden Gate Bridge and both look out across the Golden Gate towards the Marin Headlands and the Pacific Ocean. Views of the AC34 races from this perspective would be limited to only to a few glimpses of boats as they pass beyond the Golden Gate Bridge.

As discussed in Response AE-3, the EIR text on page 5.3-21, fourth paragraph, is revised as follows:

> Regulations governing the Golden Gate National Recreation Area, including Alcatraz Island, Presidio and Crissy Field, and San Francisco Maritime National Historical Park are promulgated by the National Park Service in accordance with Title 36, Code of Federal Regulations. Specific policies for each area within National Park Service jurisdiction are established in individual general management plans. For National Park Service resources in the study area, the Golden Gate National Recreation Area General Management Plan (1980), identifies maintaining the visual integrity of parkland facilities as an important factor in the placement and design of all new park facilities.[1] The Final General Management Plan Amendment (GMPA) for the Presidio (1994) provided objectives for management and use of the Presidio portion of the GGNRA, including the reestablishment of historic vistas. In addition, the General Management Plan of the San Francisco Maritime National Historical Park (1997) includes an objective to design high-quality facilities that exemplify visual consistency.

As discussed in Response AE-3, the EIR text on page 5.3-33, in the middle of Table 5.3-2, is revised as shown on the following page.

As discussed in Response AE-3, the EIR text on page 5.3-33, in the middle of Table 5.3-2, is revised as shown on the following page.

As discussed in Response AE-3, the EIR text on page 5.3-34, at the top of Table 5.3-2, is revised as shown on the following page.

Facility or Venue	AC34 Proposed Use	Exis Ove tives Compared to Expected Visual Changes
Spectator Venues		
Aquatic Park	- Hospitality - Boat Exhibition	San Management Plan • T ~~b~~ • P H di fl vi • A • V

Facility or Venue	AC34 Proposed Use	Exis Ove tives Compared to Expected Visual Changes
Spectator Venues		
Crissy Field	- Event Seating - Hospitality	Gold ~~ment Plan~~Presidio General Management Plan Amendment • L of • Ti • G ec • V

Facility or Venue	AC34 Proposed Use	Exis Ove tives Compared to Expected Visual Changes
Spectator Venues		
Fort Baker Pier at Cavallo Point	- Hospitality for corporate and private functions - Media operations	Gold ment Plan and the Fort Baker Plan ~~U.S.~~ • P B • H • L re • V

TABLE 5.3-2 [REVISED]
VISUAL CHANGES AND PLANNING OBJECTIVES FOR AC34 VENUES

Facility or Venue	AC34 Proposed Use	Existing Conditions and Overall Visual Sensitivity to Change	New Temporarily Visible Project Features	New Permanent Visible Project Features	Primary Visual Planning Objectives Compared to Expected Visual Changes
Spectator Venues					
Aquatic Park	• Hospitality • Boat Exhibition	San Francisco Maritime National Historic Park (NPS) • The museum is a streamlined modern ~~art deco boathouse~~ building on the Bay • Park amphitheater faces the Bay, sandy beach and Hyde Street Pier with historic ships and maritime ~~boat~~ displays. Visitor Center next door. Lawn areas flanking the building and amphitheater provide viewing areas. • Arching Municipal Pier encloses Aquatic Park • Visual quality and sensitivity to change are **High**	• Floating screen in the lagoon for race viewing • Installation of small tents for hospitality • Installation of temporary restrooms • Potential installation of small-scale weather monitoring equipment on Municipal Pier	None	**NPS SF Maritime Park General Management Plan**

TABLE 5.3-2 [REVISED]
VISUAL CHANGES AND PLANNING OBJECTIVES FOR AC34 VENUES

Facility or Venue	AC34 Proposed Use	Existing Conditions and Overall Visual Sensitivity to Change	New Temporarily Visible Project Features	New Permanent Visible Project Features	Primary Visual Planning Objectives Compared to Expected Visual Changes
Spectator Venues					
Crissy Field	• Event Seating • Hospitality	Golden Gate National Recreation Area and Presidio Trust • Large open lawn at edge of the Bay with open views of water • Tidal wetlands restoration area just east of lawn area • Golden Gate Bridge views – Historic structures at Bay edge • Visual quality and sensitivity to change are **High**	• 1 large tent and multiple smaller tents and exhibits, and event stage • Bleachers, 10 rows deep, for 6,200 spectators	None	**~~NPS GGNRA General Management Plan~~Presidio General Management Plan Amendment (GMPA) and Crissy Field EA**

TABLE 5.3-2 [REVISED]
VISUAL CHANGES AND PLANNING OBJECTIVES FOR AC34 VENUES

Facility or Venue	AC34 Proposed Use	Existing Conditions and Overall Visual Sensitivity to Change	New Temporarily Visible Project Features	New Permanent Visible Project Features	Primary Visual Planning Objectives Compared to Expected Visual Changes
Spectator Venues					
Fort Baker Pier at Cavallo Point	• Hospitality for corporate and private functions • Media operations	Golden Gate National Recreation Area – Marin Headlands ~~U.S. Army –~~ Fort Baker Pier • Pier at the base of the Golden Gate Bridge, views of the Bay • Horseshoe Cove looks across the Bay to the City • Lodge at Cavallo Point uses Fort Baker historic resources • Visual quality and sensitivity to change are **High**.	• Tents and or other installations on Fort Baker Pier for private events • TV camera installations at Cavallo Point, Battery Cavallo and/or Battery Wagner	None	**NPS GGNRA General Management Plan and the Fort Baker Plan**

As discussed in Response AE-5, the EIR text is inserted at the end of the second paragraph of Impact AE-3 on page 5.3-46:

> Proposed water based uses such as yachting, sailing, docking and mooring boats are consistent with intended waterfront uses and would temporarily add to the character of the San Francisco Bay waterfronts. Sailing boats and large private yachts would become considerably more numerous on the Bay and views of the race course from the-waterfronts of San Francisco, the Presidio, Sausalito, and Tiburon could become blocked by large yachts. While some large yachts may be visually interesting, many large yachts in the same area may effectively block direct views to the water and the race area from land, particularly when viewed from ~~at~~ lower elevations. Also, with enough density on the Bay, large yacht traffic could contribute to the appearance of congestion on the Bay and would temporarily alter the visual character of the Bay which generally appears to be open water with occasional ship and boat traffic. However, due to the temporary nature of these changes as well as the unique, maritime character of the race-related and spectator boats, this impact would be *less than significant.*

As discussed in Response AE-4, the following paragraphs are inserted as the first full paragraphs on page 5.3-47 under Impact AE-3:

> With the AC34 races, landside secondary viewing areas would experience temporary increases in visitors for viewing the races. Secondary viewing venues, such as the Golden Gate Bridge, the San Francisco Bay Trail, the Presidio, Golden Gate National Recreation Area, and to a lesser extent, Sausalito and Angel Island are in a major metropolitan area and are generally established to accommodate temporary increased visitor use.
>
> At the south end of the Golden Gate Bridge, sightseers unfamiliar with the area can create congestion on already-crowded regional pedestrian and bicycle throughways. However, recent improvements to the Bay Trail and nearby access to scenic viewing opportunities in the Presidio near East Bunker and the associated parking area do provide reasonable outlets to temporary congestion at the Golden Gate Bridge. Other facilities in the Presidio, such as the Parade Grounds, the Transit Center, the Golden Gate Club, the San Francisco National Cemetery, and Inspiration Point, all provide various views of the race area. CCSF, working with NPS, would include this site in incident command planning to make available other services, such as additional parking control officers, if needed. Given the multiple viewing opportunities and the relatively brief duration that race boats would be within close viewing range, viewers at secondary viewing areas would be widely distributed, congregating as the visible sailing action moves closer for each race and dissipating soon after the race.
>
> AC34 has established multiple venues to handle large crowds, which would combine with many more secondary viewing locations to accommodate temporary visitor increases that would be distributed widely over nearly 6 miles of Bay Trail through the San Francisco and Presidio waterfronts as well as GGNRA lands in two counties, such that any one location would not be expected to experience substantial increases in usage over a sustained time.

> Therefore, because the temporary increases in use would be short in duration and distributed over quite a large area, impacts of the AC34 events at secondary venues would be *less than significant.*

As discussed in Response AE-5, the following EIR text is inserted at the end of Impact AE-4 on page 5.3-47:

> AC34-related recreational boats and large spectator vessels would also have the potential to generate waterside sources of light and glare during the AC34 events. The United States Coast Guard International-Inland Navigation Rules govern navigation and safety lighting requirements for boats in inland waters such as San Francisco Bay. Boats, when anchored and when under power, are required to provide certain configurations of exterior lighting between sunset and sunrise or in times of restricted visibility such as extensive fog. In addition, both interior and exterior lighting are used on board boats for general utility and recreational use. Similar to landside light and glare effects, any potential light and glare effects associated with waterside sources would be temporary for a limited number of days during the 2012 and 2013 AC34 events, and therefore would be *less than significant.*

As discussed in Response CP-7, a new paragraph is inserted to EIR text in Impact AE-6, on page 5.3-58, after the first paragraph as follows:

> In the future, rooftop materials and treatments may be required to respond to increased energy efficiency building requirements such as installation of solar and photovoltaic panels and lighter colored roofing materials. Implementation of Improvement Measure I-AE-6, Cruise Terminal Rooftop Design, would minimize the contrast between the cruise terminal and the adjacent Bay.

As discussed in Response CP-7, the following new text is added to the end of page 5.3-59, after "Mitigation: Not Required":

> **Improvement Measure I-AE-6: Cruise Ship Terminal Rooftop Design**
>
> Rooftop energy conservation installations on the cruise ship terminal, including flat-mounted solar installations, shall incorporate darker colorings such as grey, while balancing the need to meet sustainability and energy efficiency standards, and consistency with the *Secretary of the Interior's Standards for the Treatment of Historic Properties.*

City staff has revised EIR page 5.3-60, Impact LT-AE, as follows to clarify the impact statement:

> **Impact LT-AE: ~~Long-term development on Port properties could result in impacts on visual quality~~. Future long-term development under the Host Agreement would not result in significant adverse impacts on visual resources. (Less than Significant)**

City staff has revised EIR pages 5.3-62 to 5.3-63, Impact C-AE, as follows to clarify the cumulative impact analysis:

> **Impact C-AE: The projects, in combination with other past, present, and reasonably foreseeable future projects, ~~There~~ would not result in significant adverse ~~be~~ cumulative impacts on visual quality. (Both Projects: Less than Significant ~~No Impact~~)**
>
> Visual quality ~~No residual~~ effects from the proposed ~~this~~ projects or adjacent projects are expected to be less than significant ~~occur~~. The projects that could potentially result in cumulative impacts to aesthetic resources would be the other development projects along the San Francisco waterfront as indicated in Section 5.1, Table 5.1-1. Port projects would be subject to applicable City and Port plans and policies (which include the Port's *Waterfront Land Use Plan* and the City's *General Plan* and *Planning Code*), and as such, are expected to comply with applicable design guidelines, similar to the proposed projects.
>
> As described in Impacts AE-1 through AE-8, visual impacts of the proposed projects would be less than significant. Impacts associated with the AC34 events would be temporary, and permanent impacts of the Cruise Terminal and Northeast Wharf Plaza on scenic vistas and scenic resources would generally be less than significant. As described in Impact LT-AE, it is assumed that design of future long-term development under the Host Agreement would conform with applicable planning and design guidelines for the waterfront, and any such future development would be subject to project-specific environmental review. Therefore, regardless of cumulative development along the waterfront, both the AC34 and Cruise Terminal projects would have a *less than significant* contribution ~~not contribute~~ to a cumulative adverse impact on scenic vistas, scenic resources, visual character, or light and glare. ~~Based on the above analysis, the project would not have a significant project-specific or cumulative impact on aesthetics, and therefore there is *no impact*.~~
>
> **Mitigation:** Not required

Section 5.4 Population and Housing

As discussed in Response PH-2, the table on page 5.4-7 is revised as follows:

> [Column Heading] **Major Tenants**[a]
>
> [a] A total of 77 Port tenants (occupying the total facility square feet shown in this table) would be displaced. This column lists the major tenants at each pier that would be affected.

City staff has revised EIR page 5.4-30, Impact C-PH, as follows to clarify the cumulative impact analysis:

> **Impact C-PH: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts on population and housing. (Both Projects: Less than Significant)**

City staff has revised EIR page 5.4-30, the third full paragraph, as follows to clarify the cumulative impact analysis:

> As shown in Table 5.4-3, San Francisco's population is projected to increase by 159,000 residents by 2035, while employment is expected to increase by 238,100 jobs. According to most recent available data from the Pipeline Report for the City, 44,100 housing units are reasonably foreseeable for future construction. These units would house an estimated 103,635 new residents (based on an average 2.35 people per household) if fully built out. Combined with the AC34 project's estimated 583 new residents under the future long-term development rights, the cumulative population increase would be 104,218. This would represent approximately 65.5 percent of the City's 2035 population growth. Given that the combined population impact would not exceed the City's currently planned residential growth for 2035, future residential development associated with the AC34 project would not contribute considerably to cumulative population or housing impacts.

City staff has revised EIR page 5.4-32 as follows to clarify the cumulative impact:

> As shown in Table 5.4-7 and discussed in the analysis for Impact P-PH, full development of the long-term development sites is estimated to result in a net employment increase of 2,824 new jobs. Consequently the combined net employment from future redevelopment of the project sites would result in 2,951 new jobs for the AC34 and Cruise Terminal projects combined.
>
> As shown in Table 5.4-2, employment in San Francisco is expected to increase by 238,100 jobs by 2035. According to most recent available data from the Pipeline Report for the City, an estimated 15,699,000 square feet of net new commercial development is reasonably foreseeable for future construction. This development would add up to approximately 46,800 net new jobs (based on an average City employee density estimates). If fully built out, combined with the ~~project's~~ projects' estimated 2,951 new jobs, the cumulative employment increase would be 49,751 jobs for both projects. This would represent approximately 20.9 percent of the City's estimated 2035 employment growth. Given that the combined population impact would not exceed the City's currently planned employment growth for 2035, future commercial development associated with neither ~~the~~ project, either individually or combined, would ~~not~~ contribute considerably to cumulative impacts on the City's population and housing resources.
>
> **Mitigation:** Not required

Section 5.5. Cultural and Paleontological Resources

As discussed in Response CP-1, the EIR text on page 5.5-1, fourth paragraph, is revised as follows:

> *Archeological resources* consist of prehistoric or historic-period archaeological resources. Prehistoric archeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil

> ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs). Historic-period materials (not associated with military installations or activities) might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. Archeological resources also include submerged resources such as historic-era shipwrecks.

As discussed in Response CP-1, the EIR text on page 5.5-18, last paragraph, is revised as follows:

> Fort Mason includes a National Register Historic District and a National Historic Landmark District (San Francisco Port of Embarkation, U.S. Army Historic Landmark District). The National Register District encompasses 68.5 acres of Upper and Lower Fort Mason, including 45 buildings, ten structures, and two objects as contributing elements. The San Francisco Port of Embarkation, U.S. Army Historic Landmark District is a discontiguous district that encompasses 21 acres within Upper and Lower Fort Mason, including 13 contributing buildings and five contributing structures. Lower Fort Mason is operated by the non-profit Fort Mason Center.

As discussed in Response CP-1, the EIR text on page 5.5-26, second paragraph, is revised as follows:

> **America's Cup Secondary Viewing Areas**
>
> The following provides a brief history of each of the secondary viewing areas along the San Francisco Bay that could be affected by the proposed project, and are within the C-APE; any impacts to cultural resources in the secondary viewing areas would result from increased use of these areas by spectators viewing the AC34 events. These areas are described generally from north to south in a counterclockwise manner around the Bay, and include the Presidio of San Francisco, Fort Point, Golden Gate Bridge, Marin Headlands, Angel Island, and Treasure Island/Yerba Buena Island. Although identified previously as a primary event site, portions of Fort Mason are also considered a secondary viewing area. All prior information about Fort Mason is incorporated in this subsection by reference.

As discussed in Response CP-1, Table 5.5-1, *Historic Resources in the Direct and Indirect APE*, on page 5.5-41, is revised as follows:

TABLE 5.5-1 [REVISED]
HISTORIC RESOURCES IN THE DIRECT AND INDIRECT C-APE

Name	Acres
Fort Mason	
San Francisco Port of Embarkation, U.S. Army Historic Landmark District	~~1120~~ 21
Fort Mason Historic District	~~21~~ 1,120

City staff has made the following change to the last paragraph of page 5.5-57:

> ***Belt Railroad Office Building*** ***or Belt Line Office Building*****.** This small office building was one of two wharfinger offices built in 1909 near the present day location of Pier 3 immediately north of the Ferry Building.[119] The building exhibits a mixture of Mission Revival and Prairie architectural styles and was moved to its present-day location in 1918. The building was reoriented ninety degrees so that its side façade now faces The Embarcadero. The Belt Railroad Office Building is located on Section 3 of the bulkhead wharf.

As discussed in Response CP-3, EIR text on page 5.5-58, bottom of the third paragraph is revised as follows:

> The rear addition, although of lesser architectural quality, ~~may have~~ has acquired significance in its own right because it was constructed within the period of significance.

As discussed in Response CP-1, the EIR text on page 5.5-62, second paragraph, is revised as follows:

> In November 2002, CA-SFR-6 was rediscovered during exploratory trenching for the reconstruction of Doyle Drive. The mound surface was buried 1.7 meters below the surface but appeared largely intact. Site constituents included dense quantities of marine shell and faunal remains, as well as some lithic debitage, shell beads, heat affected rock, and charcoal. Site boundaries appeared to conform to Loud's description, measuring about 30 x 75 meters in size. For management purposes however, site boundaries were extended to the south to include the location of CA-SFR-26 (now commonly referenced as combined site CA-SFr-6/26).

As discussed in Response CP-2, the EIR text on page 5.5-66, describing federal laws, is revised with new text as follows inserted at the end of the page:

> *Native American Graves Repatriation Act (NAGPRA)*
>
> Passed in 1990, NAGPRA requires federal agencies and institutions that receive federal funding to return Native American cultural items to their respective peoples. Cultural items include human remains, funerary objects, sacred objects, and objects of cultural patrimony. In addition, NAGPRA establishes a program of federal grants to assist in the repatriation process and authorizes the Secretary of the Interior to assess civil penalties on museums that fail to comply.

---

[119] Historically the Port Wharfinger controlled shipping and collected fees for the use of Port facilities.

As discussed in Response CP-1, the EIR text on page 5.5-71, second paragraph, is revised as follows:

> The resources of San Francisco Maritime NHP include six National Historic Landmark vessels: 1886 square-rigger *Balclutha*, 1890 steam ferryboat *Eureka*, 1891 scow schooner *Alma*, 1895 schooner *C.A. Thayer*, and 1907 steam tug *Hercules*. ~~and 1915 steam schooner *Wapama*.~~

As discussed in Response CP-4, the EIR text on page 5.5-81, following the second full paragraph, before the section on Pier 26 Annex, is revised to include a new paragraph as follows:

> In addition to the temporary improvements to Piers 26 and 28, the AC34 project could implement the following permanent improvements at Piers 26 and 28: fire, safety, and access improvements; roof and exterior wall repairs and replacement, lead paint and asbestos abatement, waterproofing, mechanical system upgrades, deck resurfacing; and new utility services. These improvements are subject to the Port's *Historic Preservation Review Guidelines for Pier and Bulkhead Wharf Substructures*, which provide guidance on the repair and alteration of pier and bulkhead wharf substructures to maintain the structural integrity and function, consistent with the Secretary's Standards. Review by Port staff of the detailed designs of the proposed permanent improvements for consistency with the Secretary's Standards would reduce the potential impacts to less-than-significant levels.

As discussed in Response CP-4, the EIR text on page 5.5-82, following the third full paragraph, before the section on Pier 23, is revised to include a new paragraph as follows:

> In addition to the temporary improvements to Piers 19 and 19½, the AC34 project could implement the following permanent improvements at Piers 19 and 19½: fire, safety, and access improvements; and repair of the deck and piling for the north and south aprons, if needed. These improvements are subject to the Port's *Historic Preservation Review Guidelines for Pier and Bulkhead Wharf Substructures*, which provide guidance on the repair and alteration of pier and bulkhead wharf substructures to maintain the structural integrity and function, consistent with the Secretary's Standards. Review by Port staff of the detailed designs of the proposed permanent improvements for consistency with the Secretary's Standards would reduce the potential impacts to less-than-significant levels.

As discussed in Response CP-4, the EIR text on page 5.5-83, following the second full paragraph, before the section on Pier 23 Restaurant, is revised to include a new paragraph as follows:

> In addition to the temporary improvements to Pier 23, the AC34 project could implement the following permanent improvements at Pier 23: fire, safety, and access improvements; and repair of the deck and piling for the north and south aprons, if needed. These improvements are subject to the Port's *Historic Preservation Review Guidelines for Pier and Bulkhead Wharf Substructures*, which provide guidance on the repair and alteration of pier and bulkhead wharf substructures to maintain the structural integrity and function, consistent with the Secretary's Standards. Review by Port staff of the detailed designs of

the proposed permanent improvements for consistency with the Secretary's Standards would reduce the potential impacts to less-than-significant levels.

As discussed in Response CP-3, footnote 147 on EIR page 5.5-88 is corrected as follows:

> ~~Ibid~~. Architectural Resources Group, "America's Cup Improvements, Piers 27-29, Project Consistency with the Secretary's Standards," memorandum to AECOM, April 13, 2011.

As discussed in Response CP-5, EIR text on page 5.5-91, second paragraph, to correct project description to be consistent with the information presented in Chapter 3:

> ***Fort Mason.*** The proposed AC34 project within Fort Mason may include the internal use of historic Pier 2 for hospitality purposes, and historic Pier 3 for an international broadcasting/media center. The project would also use historic Building FM-322 (former Battery Charging Station) for event-related administrative purposes. A satellite dish platform would be attached to the east end of Pier 3, and a floating barge for media boats would be moored in the basin towards the southwestern end of Pier 3. Large boats would also be moored off of both Piers 2 and 3. The existing parking lot to the south of Piers 2 and 3 would be used for event parking. Temporary restrooms would be located in the dirt lot north of ~~on~~ Fort Mason's Great Meadow. The internal use of the historic Pier sheds and Building FM-322 would have no significant impact to these structures, as no permanent alterations to them would occur. These pier sheds are frequently used for temporary and special events. The satellite dish and media barge to be placed near historic Pier 3, and temporary restrooms ~~to be located within the Great Meadow~~, are potentially incompatible with the historic setting of the National Historic Landmark District and National Register District at Fort Mason. However, because such improvements would be temporary in nature and the platforms would be removed after the event, no significant long-term impacts to Fort Mason are anticipated.

As discussed in Response CP-6, the EIR text on page 5.5-94, third paragraph, is revised as follows:

> Following the AC34 event, all weather equipment would be removed. This piece of modern electronic equipment would not be considered compatible with the historic nature of Alcatraz Island and would need to be approved by the NPS before any such equipment can be installed ~~Embarcadero Historic District~~.

As discussed in Response CP-9b, Mitigation Measure M-CP-1b (Protection of Historic Resources due to Indirect Damage) on page 5.5-97, last paragraph, and page 5.5-98, second paragraph, is revised as follows:

> ***Fencing and Signage:*** The project sponsor shall protect the integrity of historic earthen fortifications and other fragile historic resources by the installation of fencing and signage.

Pre- and Post-Event Conditions Assessment and Repair: Prior to the 2012 AC34 events, the project sponsor shall ensure that qualified cultural resources personnel assess the existing condition of the historic earthen fortifications and other fragile historic resources that could be subject to erosion from increased visitation.

As discussed in Response CP-9d, Mitigation Measure M-CP-1d on page 5.5-99 is revised as follows:

Mitigation Measure M-CP-1d: Protection of the Northeast Waterfront Historic District from Teatro Zinzanni Relocation

If Teatro Zinzanni opts to relocate to Seawall Lot 324 within the Northeast Waterfront Historic District, prior to the execution of any Port lease, Teatro Zinzanni shall ~~secure a Certificate of Appropriateness for the~~ present the proposed relocation project design to ~~from~~ the Historic Preservation Commission (HPC), which shall ~~require compliance~~ review the proposed project and make findings that the proposed design complies with Article 10, Appendix D of the Planning Code and the Secretary's Standards. Specifically, the HPC shall ~~require compliance~~ make specific findings that the proposed project complies with Sections 6 and 7 of Article 10, Appendix D, incorporated here by reference, which provide additional requirements for Certificates of Appropriateness in the Northeast Waterfront Historic District. These additional requirements address the architectural and visual characteristics that define this district, including façade line continuity, fenestration and design elements for new construction, and appropriate roof treatments. If ~~a Certificate of Appropriateness is not granted~~ the HPC does not make these findings, the Port shall not approve the proposed lease on Seawall Lot 324.

As discussed in Response CP-9e, the EIR text on page 5.5-103, Mitigation Measure M-CP-2, is revised as follows:

To avoid any potential adverse effect from the proposed project on inadvertently discovered buried or submerged historic resources, as defined in CEQA Guidelines Section 15064.5~~.4~~(a)(c), the project sponsor will distribute the Planning Department's archeological resource "ALERT" sheet to the project prime contractor;

City staff has revised page 5.5-113 to insert the following paragraph after the first full paragraph to incorporate the project updates:

Pier ½. Pier ½ is 24,000 square-feet in area and physically connected to Section 7 of the bulkhead wharf, a contributing resource within the Embarcadero Historic District. Pier ½ was evaluated in 2000 for the preparation of the Embarcadero Historic District nomination and was excluded from the Historic District because of its lack of significance and physical integrity. Historic maps indicate that this site was developed with a wharf that supported a large warehouse, although it is unknown whether Pier ½ is a remnant of this former wharf. The Port "red-tagged" and vacated the pier and secured it with fencing in 2008 due to structural deficiencies in the substructure and supporting piles. Fill removal at this location would result in the removal of the entire 24,000 square-foot pier deck and substructure. No impacts to historic resources are anticipated as a result of fill removal at Pier ½.

As discussed in Response CP-10, the EIR text on pages 5.5-117 and 118, the following text changes are made in three places--in the last sentence in the first, second and third paragraphs, under the sections "Piers 26-28," "Piers 19-19½," and "Pier 23":

> The ~~project sponsor~~ America's Cup Event Authority may decide to exercise this option to develop the interiors of.....

City staff has revised EIR page 5.5-118 through 5.5-120, Mitigation Measure M-LT-CP as follows to correct editorial errors in the long-term mitigation measure in the Cultural Resources section, which was presented correctly in Chapter 1, Executive Summary, of the Draft EIR:

Mitigation Measure M-LT-CP

- ***Archeological Testing, Monitoring, Data Recovery and Reporting*** (see San Francisco Planning Department standard mitigation)
- ***Review of New Construction within the Port of San Francisco Embarcadero Historic District for Compliance with the Secretary of the Interior's Standards*** (see San Francisco Planning Department standard mitigation)
- ***Documentation and Interpretation for Demolition or Alteration of Buildings*** (see San Francisco Planning Department standard mitigation)

a) ***Piers 30-32 Performance Criteria***

The potential new "above deck" development at Piers 30-32, although not within the Embarcadero Historic District, shall be subject to the following ~~requirements~~:

- Port shall retain the services of qualified historic preservation expert to assist in producing design criteria to guide the form and character of long-term development of Piers 30-32 to be compatible with the character of the Embarcadero Historic District and consistent with the Secretary's Standards;
- For any future Pier 30-32 long-term development proposal, the Port shall hire a qualified historic preservation expert to prepare a Historic Resources Evaluation Report (HRER) that analyzes the design of the proposed development for consistency with the Pier 30-32 design criteria, including consistency with the Secretary's Standards, and compatibility with the historic setting and character of the Embarcadero Historic District. The Report would be subject to review by the Planning Department Preservation Staff.
- ~~Port preparation of detailed design criteria for the long-term development of Piers 30-32 with the assistance of a qualified historic preservation architect;~~
- ~~Port hiring of qualified historic preservation consultant to prepare a Historic Resources Evaluation Report (HRER) that analyzes the design of the proposed development for compatibility with the historic setting and character of the Embarcadero Historic District. The Report would be subject to review by Planning Department Preservation Staff and, if recommended by the Preservation Coordinator and the Environmental Review Officer (EOR) Department, the Historic Preservation Commission.~~

Prior to issuance of Port Building or Encroachment Permits for optional long-term development of Piers 30-32, the Port shall consult and seek approval from the Planning Department and the ERO, who shall determine whether this mitigation measure has been satisfied.

b) *Performance Criteria for Long-Term Development on Historic Piers ~~Performance Criteria~~*

The project sponsor has the option to alter and ~~may~~ rehabilitate ~~and develop~~ one or more historic piers for future long-term development~~uses~~, which may include (among other things) the following kinds of improvements:

- Construction of new accessible office/mixed use space within uses within ~~existing~~ pier bulkheads ~~and sheds~~
- Installation of seismic joints between the bulkhead and pier~~s~~
- Repair or alteration of the bulkhead wharf that connects~~ing~~ the pier~~s~~ to the seawall
- Substructure pile repairs
- Fire safety~~, Building Code,~~ and access improvements

To mitigate potential impacts on historic piers that may result from the future long-term development for which there are no design details available at this time, the Port will develop design and performance criteria to guide the proposed improvements so that the work would be consistent with Port Resolution 04-89, which requires review of proposed projects for consistency with the Secretary's Standards. These design criteria and performance measures will seek to address the character defining features of typical historic pier structures that may be impacted by the proposed work. These character defining features have been described in this EIR and its supporting background reports and include:

~~Port Planning staff shall review future development proposals and designs for consistency with the Secretary's Standards. Port staff, in consultation with a qualified historic preservation consultant, shall prepare a Historic Resources Evaluation Report (HRER) to analyze any proposed project's consistency with the Secretary's Standards, which report shall be reviewed and approved by the San Francisco Planning Department. The purpose of this review is to ensure that the proposal: (1) complies with Port Commission Resolution 04-89 and the Port's~~ ~~*Historic Preservation Review Guidelines for Pier and Bulkhead Wharf Substructures*~~~~; (2) is consistent with the Secretary's Standards; (3) is compatible with the Embarcadero Historic District; and (4) protects character-defining features of the historic piers. These character-defining features include:~~

- Bulkhead building~~s~~ of Neo-classical or Mission architectural design with maritime ~~i~~Industrial transit sheds~~,~~ including three-part gable roof~~, and roof monitors that may be present in~~ with central repeating ~~sequence or as one~~ or one continuous monitor for the entire length~~;~~

- Pile supported pier deck and aprons with rail tracks that are either flush with the apron deck or depressed below the level of the deck

- ~~Open interior volumes with exposed w~~Wood and steel roof trusses and structural system~~s~~
- Transit shed walls constructed of board- formed concrete punctuated at regular intervals with cargo openings with roll-up doors and clerestory industrial sash windows or sidelights
- Mooring bitts and cleats mounted on the aprons wood to tie-up berthed vessels, timber fender piles attached to the side of the apron
- Use of industrial materials~~,~~ especially for the transit sheds~~,~~ including but not limited to concrete, steel glass and wood
- Historic lettering and identification signage

~~The HRER shall analyze any proposal against precedents set by past rehabilitation projects for historic piers for information, guidance and approaches that have been previously determined consistent with the Secretary Standards. Although new approaches to the rehabilitation of contributing piers consistent with the Secretary's Standards are encouraged as appropriate to respond to different conditions and uses, the HRER shall include analysis of whether the proposal is consistent with the Port's stewardship of contributing piers and other historic resources.~~

The following performance criteria may include items such as the following~~shall guide the HRER's analysis~~:

1. All proposed repairs, alterations and improvements would be subject to Port Commission Resolution No. 04-89, which requires all projects on Port property within the Embarcadero Historic District to be reviewed for consistency with the Secretary's Standards.

2. The proposed construction of accessible offices or mixed use in the bulkhead shall attempt to retain the sense of open interior spatial qualities of the bulkhead and pier shed so as to maintain the sense of the historic volume. The build-out of offices should avoid obstructing existing windows and doors and obscuring the interior structural elements such as columns and trusses.

3. The installation of seismic joints between the bulkhead and pier shall be incorporated into the interior and exterior design in a sensitive manner. Mechanical equipment shall be located so as to limit the amount of roof-top equipment that is highly visible.

4. The repair or alteration of the bulkhead wharf and substructure pile repair shall be reviewed for consistency with the Port's Historic Preservation Review Guidelines for Pier and Bulkhead Wharf Substructures (see also Mitigation Measure M-CP-1a, Bulkhead Wharf Substructure Review Process).

5. Fire Safety and Access Improvements shall be sensitive to character defining features of the resource while meeting safety and code requirements.

6. Prior to issuance of Port Building or Encroachment Permits for optional long-term development on piers, the Port shall consult with the Planning Department and the

Environmental Review Officer (ERO) who shall determine whether these design criteria and performance measures have been met and the mitigation measure has been satisfied.

~~1. Construction of new uses in historic pier bulkheads shall minimize the subdivision of interior space and, where appropriate, maintain a continuous sightline through the central bay of pier sheds.~~

~~2. New construction shall minimize or avoid obstructing existing windows and doors and obscuring interior columns and trusses. New construction shall, to the extent feasible, be free-standing and detached from the historic pier to differentiate the historic pier from any contemporary additions.~~

~~3. Materials that are compatible with the industrial character of the resource shall be used whenever feasible.~~

~~4. If seismic joints are installed between the bulkhead and pier, they shall be incorporated into the interior and exterior design in a manner that minimizes appearance but meets applicable building and seismic code requirements.~~

~~5. Mechanical equipment shall be integrated into the architectural design of the building or structure and the size and appearance of any roof-top equipment shall be minimized to the greatest extent feasible.~~

~~6. Bulkhead wharf and pier substructures shall be repaired and strengthened to meet contemporary structural requirements for existing or proposed new uses; in areas of high public visibility along The Embarcadero, the historic appearance of the bulkhead wharf and pier substructures shall, to the greatest extent feasible, be maintained consistent with the character of the Embarcadero Historic District.~~

~~7. Alterations and construction necessary to meet applicable Building Code, fire safety, and access requirements shall, to the greatest extent feasible, be sensitive to the character-defining features of the interior and exterior of the piers. If feasible, such alterations shall be co-located with existing electrical and mechanical systems to reduce impacts to historic materials.~~

City staff has revised EIR page 5.5-120, Impact C-CP, as follows to clarify the cumulative impact analysis:

> **Impact C-CP: The ~~combination of the~~ AC34 and Cruise Terminal projects, in combination with other past, present and foreseeable future projects, could have a cumulatively considerable effect on cultural resources. (Both Projects: Less than Significant with Mitigation)**

City staff has revised EIR page 5.5-123, second paragraph, through 5.5-125, first full paragraph, as follows to clarify the cumulative impact analysis:

> The analysis here is no different. As discussed above, past projects within and adjacent to the Embarcadero Historic District have, since at least 2000, have been consistent with the Secretary's Standards, and thus have not caused an adverse impact to the district. Additionally, present and reasonably foreseeable future projects will not result in adverse

impacts to the district because of the Port Commission's ongoing requirement that all projects within the Embarcadero Historic District comply with the Secretary's Standards. Notwithstanding the project-level significant effects of the Brannan Street Wharf project, the district will continue to retain a substantial degree of integrity and thus remain eligible for listing on the NRHP. Because the combined effects of past, present, and reasonably foreseeable projects do not result in a significant effect on the Embarcadero Historic District, there is no cumulative impact to the district to which either the proposed AC34 ~~and~~ or Cruise Terminal projects would contribute. Thus, although the proposed AC34 and Cruise Terminal projects would result in a number of temporary, permanent, and long term improvements within and adjacent to the district, these changes when considered in combination with the aforementioned past, present, and reasonably foreseeable projects, would not have a significant cumulative impact on the historic integrity of the Embarcadero Historic District.

The temporary improvements for AC34 would include, but are not limited to, freestanding tents, trailers and portable buildings, exhibitions, bleachers, gangways and docks, wave attenuators, and floating docks. The permanent improvements for AC34 would include structural repair and upgrade of transit sheds, seismic strengthening of transit sheds, apron repair and fendering, installation of stormwater management features as well as bulkhead wharf substructure repair, alteration, and reconstruction in certain locations. The Cruise Terminal project would result in construction of a new cruise terminal and a waterfront plaza at Pier 27. ~~Long-term development~~ Permanent improvements to Piers 26-28, 19-19½, and Pier 23 in support of the AC34 events would include pier, apron and bulkhead wharf substructure repair, alteration and reconstruction, installation of seismic joints between pier bulkheads and transit sheds, construction of ~~new accessible offices~~ interior structures within pier bulkheads and transit sheds, and/or fire safety and access improvements. Additionally, long-term development of Piers 30-32 under the Host Agreement would include construction of retail/commercial, office, entertainment, and maritime uses.

Compliance with existing Port policy use of the Secretary's Standards, as well as the aforementioned mitigation measures, would reduce the AC34 and Cruise Terminal project-level impacts to the Embarcadero Historic District to a less-than-significant level. Moreover, the AC34 event's proposed alterations to the district are generally temporary and highly reversible and would thus have a less-than-significant impact on the district due to the relatively short timeframe that they would be installed. Additionally, the potentially significant and unavoidable impacts from long-term development at Piers 30-32 under the Host Agreement would not contribute to any potential cumulative impacts to the Embarcadero Historic District because Piers 30-32 and Red's Java House are located outside of the district boundaries, Piers 30-32 are not considered historic resources for the purposes of CEQA, and Red's Java House, while an historic resource as discussed above, is not a contributor to the district.

Additionally, the proposed AC34 project improvements and long term development located within the Embarcadero Historic District would be required to comply with the Secretary's Standards as mandated by Port Policy 04-89, as well as **Mitigation Measures**

M-CP-1a (Bulkhead Wharf Substructure Review Process)~~, Mitigation Measure M-CP-6 (Northeast Wharf Plaza Performance Criteria)~~ and **Mitigation Measure M-LT-CP-b** (Performance Criteria for Long-Term Development on Historic Piers), and the Cruise Terminal project would be subject to **Mitigation Measure M-CP-6** (Northeast Wharf Plaza Performance Criteria). The AC34 project's contribution to any potential cumulative impacts associated with vibration impacts from multiple construction projects requiring impact tools, such as pile driving, would be reduced to less than significant with implementation of **Mitigation Measure M-NO-3** (Pre-Construction Assessment to Minimize Structural Pile Driving Vibration Impacts to Adjacent Buildings and Structures and Vibration Monitoring).

Accordingly, neither the proposed AC34 ~~and Cruise Terminal~~ projects, ~~as well as~~ including the long term development, nor the Cruise Terminal project would not contribute in a cumulatively considerable manner to any cumulative impact to the Embarcadero Historic District. First, past, present, and reasonably foreseeable future projects will not result in a cumulative impact to the district because the district will continue to retain integrity and be eligible for listing on the NRHP. Second, any project-level effects of the proposed AC34 and Cruise Terminal projects to the Embarcadero Historic District would be mitigated to a less than significant level by **Mitigation Measures M-CP-1a** (Bulkhead Wharf Substructure Review Process), **M-CP-1b** (Protection of Historic Resources due to Indirect Damage), **M-CP-6** (Northeast Wharf Plaza Performance Criteria), **M-LT-CP-b** (Performance Criteria for Long-Term Development on Historic Piers), and **M-NO-3** (Pre-Construction Assessment to Minimize Structural Pile-Driving Vibration Impacts on Adjacent Historic Buildings and Structures and Vibration Monitoring). Although the proposed long term development at Piers 30-32 under the Host Agreement may result in a significant and unavoidable impact to the district, any such impact would not contribute to a cumulative impact because, as discussed above, no such impact exists at this time. Additionally, implementation of **Mitigation Measures M-CP-2** (Inadvertent Discovery of Archeological Resources or Shipwrecks) and **Mitigation Measures M-CP-4** (Inadvertent Discovery of Human Remains) for each project individually would also reduce any contribution to potentially significant cumulative impacts to archeological resources and human remains, respectively, to a less-than-significant level. Accordingly, cumulative impacts to the Embarcadero Historic District with respect to either the AC34 or the Cruise Terminal projects are less than significant with implementation of mitigation identified for each of the two projects.

SAFR/Aquatic Park. The proposed extension of historic streetcar through Aquatic Park to Fort Mason Center would result in adverse impacts to the integrity of the Aquatic Park Historic Landmark District, according to the Draft EIS recently prepared for this project.[153] These impacts would include a reduction in the integrity of setting, association, and feeling of the historic district due to the introduction of incompatible elements and uses. While the proposed AC34 project would also introduce potentially incompatible elements to the Aquatic Park Historic Landmark District, this would be a temporary and reversible effect. Furthermore, construction of the streetcar extension would not begin until after 2013, when the proposed AC34 event uses and installations will have been removed (no event

> installations are planned for this area in 2013). No impacts to the Aquatic Park Historic Landmark District are anticipated from any of the other cumulative scenario projects; therefore, impacts to cultural resources at the Aquatic Park AC34 venue would not be cumulatively considerable.

City staff has revised EIR page 5.5-126, last paragraph, continuing on to page 5.5-127, as follows to clarify the cumulative impact analysis:

> ***Cavallo Point.*** The Marin Headlands and Fort Baker Transportation Infrastructure and Management Plan would include improvements to 11 miles of historic roads in the Marin Headlands and Fort Baker. Roadway improvements in the Fort Baker area, in particular, could coincide with the AC34 event at Fort Baker Pier at Cavallo Point, as these improvements are planned for 2012 and 2013. Although no direct impacts to historic resources were identified at Fort Baker Pier at Cavallo Point as a result of the AC34 event, the indirect effects of secondary viewing could damage historic earthen fortifications along the bluffs in the Cavallo Point area from increased erosion due to visitors straying off designated paths during event races. The roadway improvements planned in these areas could enhance access to these fortifications, which along with the increased visitation from the AC34 event, could combine to form an impact to historic resources that is cumulatively considerable. These effects, however, could be reduced to a less-than-significant level with implementation of **Mitigation Measures M-CP-1b** (Protection of Historical Resources due to Indirect Damage).

As discussed in Response CP-11, the EIR text on page 5.5-127, second paragraph, is revised as follows:

> ***Alcatraz Island.*** The proposed energy improvements at Alcatraz Island would include new photovoltaic (PV) panels on the Prison Building (cellhouse) ~~and New Industries Building~~ to reduce the island's reliance on diesel-generated power. These permanent rooftop alterations to the ~~Prison Building (~~cellhouse~~)~~ would not combine with the effects of the proposed project to form an impact that is cumulatively considerable, as the proposed temporary event uses would be entirely internal to the cellhouse building.

City staff has revised EIR page 5.5-127, fourth full paragraph, as follows to clarify the cumulative impact analysis:

> ***Northern San Francisco Hillside Locations.*** There are no other past, present, or reasonably foreseeable projects along the San Francisco hillside locations which could combine with the effects of the proposed project to form an impact that is cumulatively considerable. While these secondary viewing locations would be temporarily affected due to the influx of additional spectators, no changes to infrastructure or other physical ~~affects~~effects on the environment are anticipated.

As discussed in Response CP-11, the EIR text on page 5.5-128, third paragraph, is revised as follows:

> *GGNRA, Marin County ~~(Marin Headlands and Fort Baker)~~.* Similar to the properties managed by the GGNRA in San Francisco, those properties managed by the GGNRA in Marin County, including the ~~Marin Headlands and~~ Forts Baker, Barry, and Cronkhite Historic District, could also experience cumulative impacts to historic earthen fortifications resulting from combined visitation from implementation of the Dog Management Plan, the Marin Headlands and Fort Baker Transportation Infrastructure and Management Plan, and the AC34 event. However, implementation of Mitigation Measure M CP-1b (Protection of Historic Resources due to Indirect Damage), in addition to those identified in the Dog Management Plan EIS and the Transportation Management Plan intended to protect the historic fortifications from erosion, as well as federal laws such as NAGPRA that are intended to protect human remains, would reduce such potentially significant cumulative impacts to a less-than-significant level.

City staff has revised EIR page 5.5-129, last paragraph, through 5.5-130 as follows to clarify the cumulative impact analysis:

> **Paleontological Resources**
>
> Several sections of the California State Public Resources Code protect paleontological resources. Section 5097.5 of the PRC prohibits "knowing and willful" excavation, removal, destruction, injury, and defacement of any paleontological feature on public lands (lands under state, county, city, district, or public authority jurisdiction, or the jurisdiction of a public corporation), except where the agency with jurisdiction has granted permission. As no significant impacts to paleontological resources were identified as part of the proposed projects (primarily because ground disturbance would be limited to artificial fills and/or Bay mud), the proposed projects would not have a significant cumulative contribution to potential impacts to paleontological resources. All of these above-listed projects as well as the proposed projects have been, or would be, required to adhere to state laws concerning the protection and appropriate treatment of paleontological resources. As such, no significant cumulative impacts to paleontological resources are anticipated as a result of the proposed projects.
>
> **Human Remains**
>
> All of the identified past, present, and reasonably foreseeable future projects that involve ground disturbance have the potential to combine with the impacts of the proposed projects to form cumulative impact to unrecorded human remains, including those interred outside of formal cemeteries. Human remains are protected under several state laws, including PRC Section 5097.98 and Health and Safety Code Section 7050.5. All of these above-listed projects as well as the proposed projects have been, or would be, required to adhere to state laws concerning the protection and appropriate treatment of human remains, similar to **Mitigation Measure M-CP-4** (Inadvertent Discovery of Human Remains) for the accidental discovery of such remains during construction. In addition, the cumulative

projects identified on NPS-managed lands, in particular, would be required to adhere to strict Federal resource protection measures developed specifically for these management areas. As such, no significant cumulative impact to human remains is anticipated.

Mitigation of Cumulative Impacts

As described above, implementation of the following mitigation measures under the applicable project would reduce the respective contribution to cumulative impacts on cultural resources to less than significant for both the AC34 and Cruise Terminal projects.

AC34 Project Mitigation:

Mitigation Measure M-CP-1a (Bulkhead Wharf Substructure Review Process)

Mitigation Measure M-CP-1b (Protection of Historic Resources due to Indirect Damage)

Mitigation Measure M-CP-1c (Protection of Historic Resources due to Direct Damage)

Mitigation Measure M-CP-1d (Protection of the Northeast Waterfront Historic District from Teatro Zinzanni Relocation)

Mitigation Measure M-NO-3 (Pre-Construction Assessment to Minimize Structural Pile Driving Vibration Impacts to Adjacent Buildings and Structures and Vibration Monitoring)

Mitigation Measure M-CP-2 (Inadvertent Discovery of Archeological Resources or Shipwrecks)

Mitigation Measure M-CP-4 (Inadvertent Discovery of Human Remains)

~~**Mitigation Measure M-CP-6** (Northeast Wharf Plaza Performance Criteria)~~

Mitigation Measure M-LT-CP-a (Piers 30-32 Performance Criteria)

Mitigation Measure M-LT-CP-b (Performance Criteria for Long-Term Development on Historic Piers)

Cruise Terminal Project Mitigation:

Mitigation Measure M-CP-2 (Inadvertent Discovery of Archeological Resources or Shipwrecks)

Mitigation Measure M-CP-4 (Inadvertent Discovery of Human Remains)

Mitigation Measure M-CP-6 (Northeast Wharf Plaza Performance Criteria)

Section 5.6 Transportation and Circulation

As discussed in Response TR-1c, the following text has been added to the EIR text on page 5.6-5:

> **Polk Street** runs between Beach Street and the intersection of Market and Fell Streets. South of Market Street, Polk Street turns into Tenth Street. Polk Street generally has one travel lane in each direction and parking on both sides of the street. Bicycle Route 25 runs northbound and southbound along Polk Street between Beach Street and Market Street. A bicycle lane (Class II facility) is provided in the southbound direction between Post and Market Streets, in the southbound direction between Beach and Lombard Streets, and in the northbound direction between Union and Beach Streets. A signed route (Class III facility) is provided on the remaining segments of Polk Street.
>
> **Columbus Avenue** extends between Beach and Montgomery Streets. Columbus Avenue has two travel lanes in each direction and on-street parking on both sides of the street. The San Francisco General Plan identifies Columbus Avenue as a Major Arterial in the CMP network, a Primary Transit Street (Transit Important Street), and a Neighborhood Commercial Street. Bicycle Route 11 runs on Columbus Avenue as a Class III facility between North Point and Montgomery Streets.
>
> **Market Street** is a major east-west roadway in downtown San Francisco running from The Embarcadero to the Twin Peaks area, where it becomes Portola Drive. It operates as a two-way arterial with two travel lanes in each direction throughout the project area. Between Drumm and Valencia Streets, left turns are not permitted along Market Street. The San Francisco General Plan identifies Market Street as a Transit Conflict Street in the CMP network through the project vicinity, and as a Major Arterial elsewhere. Market Street is also classified as an MTS roadway and a Transit Preferential Street (Transit-Oriented). Starting in September 2009, a trial program was introduced involving the restriction of through traffic (with exceptions for trucks, taxis, and bicycles) at multiple locations on eastbound Market Street to increase road space for transit vehicles and bicyclists. Since that time the trial program has become permanent, with eastbound Market Street traffic required to make right turns at Tenth Street and at Sixth Street. Bicycle Route 50 runs on Market Street as a Class III facility between Steuart and Eighth Streets, and as a Class II facility west of Eighth Street.

As discussed in Response TR-1a, the EIR text on page 5.6-24, middle of first paragraph, is revised as follows:

> The Water Emergency Transportation Authority (WETA) currently operates ferry service to Alameda/Oakland and Alameda Harbor Bay. The Alameda/Oakland service also provides seasonal (April to October) service to Angel Island. Per California Senate Bill 1093, WETA was charged …

As discussed in Response TR-1b, the EIR text on page 5.6-24, fourth paragraph, is revised as follows:

> Golden Gate Transit, operated by the Golden Gate Bridge, Highway, and Transportation District (GGBHTD), provides bus service between the North Bay (Marin and Sonoma Counties) and San Francisco. ~~Golden Gate Transit operates 22 commuter bus routes, 9 basic bus routes and 16 ferry feeder bus routes into San Francisco, several of which are at or near the temporary Transbay Terminal.~~ Golden Gate Transit operates 18 commuter bus routes and 5 basic bus routes into San Francisco, several of which operate near the temporary Transbay Terminal. Basic bus routes operate at regular intervals of ~~15~~ 30 to 90 minutes depending on the time and day of week. Commute and ferry feeder bus routes operate at more frequent intervals in the mornings and evenings. Golden Gate Ferry ~~Transit also~~ operates ferry service between the North Bay and San Francisco. ~~During the morning and evening commute periods, ferries are operated between Larkspur and San Francisco, and between Sausalito and San Francisco.~~ Ferries operate between Larkspur and San Francisco, and between Sausalito and San Francisco, all day, seven days a week. Additional North Bay ferry service operated by Blue & Gold connects both Sausalito and Tiburon with San Francisco. The Blue & Gold fleet serves both Pier 41 and the Ferry Building, but Golden Gate Ferry serves only the Ferry Building.

As discussed in Response TR-1b, the EIR text on page 5.6-24, last paragraph, is revised as follows:

> Golden Gate Transit ~~provides~~ bus service ~~transportation to and from Sausalito to~~ between San Francisco and Sausalito ~~and northern Marin County via~~ enters at ~~Bridgeway and~~ Alexander Avenue and continues on Bridgeway. A transit node is located in downtown Sausalito at Bridgeway and Bay Street, near the ferry landing. ~~Both the Blue and Gold Fleet and the Golden Gate Transit District provide ferry service from Sausalito to San Francisco at Pier 41 and the Ferry Building.~~

As discussed in Response TR-1d, the second paragraph on page 5.6-27 is revised as follows:

> In addition, Alcatraz Cruises provides Bay excursions from Pier 31½, that are 90-minute tours of San Francisco Bay during which passengers remain on the vessel at all times and do not stop at Alcatraz or Angel Island. Depending on the demand, the number of Bay excursions varies between one and three trips per day, approximately five days per week. Other Bay excursions are provided year-round by Red and White Fleet, and from March through October by Adventure Cat.

As discussed in Response TR-8a, the EIR text on page 5.6-30, following the second full paragraph and prior to Section 5.6.1.5, is revised as follows:

> Bicycles are allowed on weekends on Caltrain (between 50 and 80 bicycles per train, in a "bike" car only), on BART in all cars except the front car, and on Golden Gate Transit, WETA, and Blue & Gold ferries. In addition, bicycles are allowed in quantities limited by bicycle rack capacity on Muni buses (two per bus), AC Transit (two per bus), and Golden Gate Transit (three per bus, with additional capacity within luggage compartment on

> certain vehicles). Muni Metro allows carrying on of small, foldable bicycles only. Caltrain is currently proposing a second bicycle car to increase bicycle capacity in 2012. As of May 24, 2011, folding bicycles are allowed inside all Muni vehicles except cable cars, as long as they do not block seats or interfere with passenger or wheelchair movements.

As discussed in Response TR-1f, Table 5.6-6 on page 5.6-33 of the EIR is revised as follows to reflect updated information provided by the Presidio Trust:

TABLE 5.6-6 [REVISED]
ESTIMATED OFF-STREET PARKING SUPPLY BY SUBAREA IN SAN FRANCISCO

Parking Study Area Subarea	Free, Publicly Available	Paid, Publicly Available	Non-Public	Total
A. Presidio and Crissy Field	1,252[a]	~~779~~909	~~865~~695	~~2,896~~2,856[a]
B. Marina Green	615	152	428	1,195
C. Fort Mason to Aquatic Park	301	1,107	572	1,980
D. Fisherman's Wharf	0	5,432	1,175	6,607
E. Northeast Embarcadero	0	8,127	355	8,482
F. South of Ferry Building to Mission Bay	0	11,509[b]	2,295	13,804
Total San Francisco	**2,168**	**~~27,106~~27,236**	**~~5,690~~ 5,520**	**~~34,964~~ 35,924**

[a] Does not include public parking available in the Main Post area south of Lincoln Blvd, which totals approximately ~~1,100~~ 1,400 on-street and off-street parking lot spaces. The supply also excludes approximately 980 public parking spaces located along Fort Point, Crissy Field, Mason Street and the Palace of Fine Arts that might not be available during AC34 events, as well as about 370 spaces to be eliminated as part of the Doyle Drive reconstruction project. See Appendix TR-7 for details on the location of off street parking facilities.

[b] Includes Ballpark parking lots in the Mission Bay Area with combined supply of about 2,500 parking spaces.

SOURCE: SFMTA, Presidio Trust, Adavant Consulting/LCW Consulting, 2011

City Staff has revised the second sentence of the second paragraph on page 5.6-34 of the EIR as follows in response to updated information on parking supply:

> Publicly available on-street parking is generally metered, except in the vicinity of the Main Post where approximately ~~1,100~~ 1,400 spaces are available in and around the old parade grounds, about half of which are unmetered.

As discussed in Response PP-3b, the following text is added in Section 5.6, page 5.6-35, before the heading "San Francisco Bay Trail Plan":

> ### *Golden Gate Bridge, Highway and Transportation District Short-Range Transit Plan*
>
> The Short-Range Transit Plan (SRTP) for Fiscal Years 2008-2017 consists of an overview of the Golden Gate Bridge, Highway and Transportation District transit system, including history and current status, a service and systems evaluation, an operations plan, an operations budget and a capital improvement program. The development of the SRTP is the principal process for creation and modification of GGBHTD transit service goals,

> objectives, measures, and standards. These measures and standards are applied to the Golden Gate Transit bus system, Golden Gate ferry system, and individually to all regional bus and ferry routes under GGBHTD control.

As discussed in Response TR-1e, EIR text on page 5.6-35, middle of the fourth paragraph at the bottom of the page, is revised as follows:

> The Association of Bay Area Governments (ABAG) administers the San Francisco Bay Trail Plan (Bay Trail Plan). The Bay Trail is a multi-purpose recreational trail that, when complete, would encircle San Francisco Bay and San Pablo Bay with a continuous ~~400~~500-mile network of bicycling and hiking trails; to date, ~~290~~ 300 miles of the alignment have been completed (see Section 5.11, Recreation, for further description). The Bay Trail serves an important function as an alternative commute corridor, and serves as the backbone for MTC's Regional Bicycle Plan.

As discussed in Response TR-2e, the EIR text on page 5.6-52, first sentence of the first full paragraph is revised as follows:

> The existing a.m. and p.m. peak hour ridership was obtained from Muni monitoring data (September-October 2010 for Muni bus lines and July-August 2008 data for the F-Market & Wharves historic streetcar line).

City Staff has revised Table 5.6-11 on page 5.6-57 of the EIR; and Table 5.6-13 on page 5.6-60 of the EIR, "Spectators on Boats" section, as follows (table headings are shown for clarity) to incorporate the project updates:

	AC34 2012		AC34 2013	
	Weekday	**Weekend**	**Weekday**	**Weekend**
Daily				
Spectators on Boats	1,235~~4,630~~	3,500~~13,000~~	1,650~~6,300~~	10,360~~18,000~~

City staff has revised EIR text on pages 5.6-86 to 5.8-89 under Impact TR-17 based on discussions with SFMTA Service Planning, as follows:

> The F-Market & Wharves historic streetcar service would serve visitors destined to the northern waterfront from the Castro and Civic Center areas, and would also provide supplemental service between the Ferry Building transit hub and venues in the Fisherman's Wharf vicinity. Currently the F-Market & Wharves line operates at 121 percent capacity utilization during the weekday p.m. peak hour (outbound) and 110 percent capacity utilization during the Saturday midday peak hour (inbound). The number of spectators destined to the Fisherman's Wharf and Embarcadero viewing areas that would use the F-Market & Wharves to travel along The Embarcadero is difficult to determine given that this line already operates at more than 100 percent capacity utilization. It is anticipated that

> during the peak midday/afternoon period, potential riders would need to wait for one or more streetcars before being able to board, or might decide to walk instead."

As discussed in Response AQ-9, the text in three places in the EIR on pages 5.6-95, 5.6-97 and 5.6-98 is amended as follows:

> ***Impacts of Mitigation Measure.*** While the identified mitigation measure would reduce transportation impacts, any increase in ferry or bus service would result in an increase in air quality emissions from those sources. However, those increases in emissions ~~would~~ may partially be offset by a reduction in vehicle emissions associated with the reduction in vehicle traffic because of the increased availability of transit. The extent of the increase in emissions and any offset reduction are not quantified in this EIR because the results would not change the outcome of the air quality analysis described in Section 5.8. Further, consistent with CEQA Guidelines 15126.4, the effects of mitigation measures shall be discussed but in less detail than the significant effects of the project as proposed.

As discussed in Response TR-12, the EIR text on page 5.6-112, last sentence, is revised as follows:

> This project is currently under environmental review by the Transportation Authority with construction scheduled to start in the fall of 2013, following the completion of all AC34 race activities. The FTA is the Lead Agency under NEPA, and the SFCTA is the Lead Agency under CEQA. Caltrans and SFMTA participate as Participating Agencies under NEPA and as Responsible Agencies under CEQA in the environmental review. SFMTA would take the subsequent lead in all major steps of project delivery following completion of the environmental review process, including final design, construction, operation, and maintenance.

As discussed in Response TR-1f, Table 5.6-35 on page 5.6-170 of the EIR is revised, as shown on the following page, to reflect updated information provided by the Presidio Trust.

As discussed in Response AQ-9, the text in three places in the EIR on pages 5.6-95, 5.6-97 and 5.6-98 is amended as indicated below to further clarify the extent of potential emissions reductions from increased ferry service identified in Mitigation Measures M-TR-21, M-TR-22, and M-TR-23:

> ***Impacts of Mitigation Measure.*** While the identified mitigation measure would reduce transportation impacts, any increase in ferry or bus service would result in an increase in air quality emissions from those sources. However, those increases in emissions ~~would~~ may partially be offset by a reduction in vehicle emissions associated with the reduction in vehicle traffic because of the increased availability of transit. The extent of the increase in emissions and any offset reduction are not quantified in this EIR because the results would not change the outcome of the air quality analysis described in Section 5.8. Further, consistent with CEQA Guidelines 15126.4, the effects of mitigation measures shall be discussed but in less detail than the significant effects of the project as proposed.

TABLE 5.6-35 [REVISED]
COMPARISON OF PUBLIC PARKING SUPPLY TO ESTIMATED PARKING DEMAND BY AREA FOR AC34 2012 AND 2013 PEAK EVENT DAYS

Study Area	**Public Parking Supply**	**AC34 2012 Demand**[a]		**AC34 2013 Demand**[a]	
		Weekday	**Weekend**	**Weekday**	**Weekend**
Presidio and Crissy Field	~~2,031~~ 806[b]	2,030	8,085	2,270	8,610
Marina and Fort Mason to Aquatic Park	2,175	3,351	6,300	1,632	6,510
Fisherman's Wharf	5,432	621	1,671	692	2,625
The Embarcadero	19,636 [c]	816	1,575	2,759	11,225
Downtown	6,385 [d]	0	0	0	1,260
Other San Francisco [e]	NA	0	315	0	525
Total San Francisco	*~~35,659~~* *34,434*	*6,818*	*17,946*	*7,353*	*30,756*
Treasure Island	NA	414	1,050	478	2,290
Marin County [f]	2,500 [g]	207	1,584	237	2,195

[a] Parking demand associated with 45,000 spectators on a weekday and 197,300 spectators on weekend day in 2012, and 50,000 spectators on a weekday and 334,000 spectators on a weekend day in 2013.

[b] Does not include public parking available in the Main Post area south of Lincoln Blvd, which totals approximately ~~1,100~~ 1,400 on-street and off-street parking lot spaces. The supply excludes approximately 980 public parking spaces ~~Approximately half of the supply is~~ located along Fort Point, Crissy Field, Mason Street and the Palace of Fine Arts that ~~and~~ might not be available during AC34 events, as well as about 370 spaces to be eliminated as part of the Doyle Drive reconstruction project. See Appendix TR-7 for details on the location of off street parking facilities.

[c] Includes Ballpark parking lots in the Mission Bay Area with combined supply of about 2,500 parking spaces.

[d] Includes Sutter-Stockton (1,865 spaces), Union Square (985 spaces), Ellis-O'Farrell (950 spaces), and Fifth-Mission (2,585 spaces) City-owned garages.

[e] Includes parking demand for trips destined to Alcatraz Island.

[f] Includes parking demand for trips destined to Angel Island.

[g] Approximate number of parking spaces available at Fort Baker and the Marin Headlands.

SOURCE: SFMTA, NPS, Presidio Trust, Adavant Consulting/LCW Consulting, 2011

City Staff has revised the EIR text on page 5.6-173, fourth paragraph, first and second sentences, are revised as follows to clarify the discussion of bus parking spaces within the Ground Transportation Area (GTA):

> As discussed in Impact TR-88, a portion of the loading demand associated with the Cruise Terminal would include trips by Border Control. About six parking spaces within the GTA would be provided for these uses (see Figure 3-33). In addition, the GTA would include accommodation for 20 buses (including shuttles and tour buses) to load and unload passengers, as staging ~~staffing~~ for four buses along Pier 29, for a total on-site capacity of 24 buses. An on-site staging area for buses and trucks has been identified at the tip of Pier 27-29 (to the west of the GTA) in the event that the demand for bus parking within the GTA exceeds 24. When the bus parking within the GTA is fully occupied, buses would be diverted to the bus and truck staging area until a bus parking space becomes available.

As discussed in Response TR-2h, the EIR text on page 5.6-175, first sentence, is revised as follows:

> Cumulative impacts associated with near-term projects occurring during the construction and operational period of the AC34 project ~~are~~ have been discussed ~~above under~~ in Section 5.6.3.4-AC34 Events and Cruise Terminal Impacts and Mitigation Measures, starting on page 5.6-72.

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Section 5.7 Noise and Vibration

As stated in Response NO-2, the EIR text in Table 5.7-6 on page 5.7-35 is revised as follows:

TABLE 5.7-6 [REVISED]
NOISE LEVELS WITH OPERATION OF GENERATORS DURING AC34 EVENTS

Spectator Areas/Piers	Nearest Sensitive Receptor and Distance from Generator	Existing Noise Level (dBA, L_{eq})	Existing Noise Level with Generator (dBA, L_{eq})	Increase Over Ambient Noise Level (dBA, L_{eq})
Fort Baker Pier	Cavallo Point Lodge, 1,660 feet	49.0	56.6	+ 7.6[a]
Crissy Field	Armistead Road Residences, 1,000 feet	62.3	64.1	+ 1.8
Fort Mason	Residences at Laguna and North Point Streets, 1,100 feet	68.0	68.1	+ 0.1
Marina Green	Marina Boulevard, 300 feet	63.2	71.3	**+ 8.1**
Aquatic Park	Ghirardelli Square (residential units on the upper floors), 750 feet	65.0	65.9	+ 0.9
Alcatraz Island	None	---	---	---
Pier 19	218 Filbert Street, 900 feet	58.5	62.8	+ 4.3
Pier 23	218 Filbert Street, 900 feet	58.5	62.8	+ 4.3
Piers 27-29	101 Lombard Street, 500 feet	63.0	71.4	**+ 8.3**
Piers 30-32	38 Bryant Street, 500 feet	68.9	70.7	+ 1.8

NOTES: **Bold** indicates increase that exceeds ambient noise levels at a residential property line by more than 5 dBA (San Francisco Police Code Section 2909[a]]1]).

[a] Does not account for attenuation of intervening hillside.

SOURCE: Environmental Science Associates, 2011.

City staff has revised the text on page 5.7-36, end of the second and third paragraphs, to be consistent with the revisions discussed in Response NO-6 regarding Mitigation Measure M-NO-2 as follows:

> The likelihood of this potential impact would particularly be increased if high-volume and/or low-frequency (subwoofer) amplified music were to occur in outdoor areas. **Mitigation Measures M-NO-2a** (Selection, Shielding or Acoustical Enclosures for Generators at Piers 27-29 and Marina Green and Use of Electrical Service at Piers 27-29) and **M-NO-2b** (Noise Control Plan for Entertainment Venues) are recommended to reduce the severity of potential noise impacts from amplified public address systems and/or music.
>
> **Impact Summary**
>
> The America's Cup events and facilities may result in exposure of persons to or generation of noise levels in excess of standards established in the *San Francisco General Plan* or San Francisco Noise Ordinance. Potentially significant noise impacts would result from generator operations at Piers 27-29 and Marina Green and from public address systems and/or amplified music at the proposed entertainment venues. Implementation of **Mitigation Measure M-NO-2a** (Selection, Shielding or Acoustical Enclosures for Generators at Piers 27-29 and Marina Green and Use of Electrical Service at Piers 27-29) would reduce potential noise impacts from generator operations to a less-than-significant level.

As stated in Response NO-6, Mitigation Measure M-NO-2a, on page 5.7-37, is revised as follows:

> **Mitigation Measure M-NO-2a: Selection, Shielding or Acoustical Enclosures for Generators at Piers 27-29 and Marina Green and Use of Electrical Service at Piers 27-29**
>
> At Piers 27-29, ~~T~~the AC34 project sponsor shall use utility electricity in lieu of generators, if available; if electricity requirements exceed available power, the AC34 project sponsor shall use generators. The AC34 project sponsor shall provide shielding or acoustical enclosures for generators at Piers 27-29 and the Marina Green. Specification sheets for generators indicate that Level 1 sound enclosures will dampen noise levels by 5 dBA for the size of generators proposed ~~for Piers 27-29~~. Additionally, the project sponsor shall achieve a performance standard of 60 dBA at the Crissy Field Center when educational activities are in progress.
>
> *Analysis of Mitigation Measure.* Implementation of this would reduce the overall noise increase experienced at the nearest sensitive receptor from Piers 27-29 from 8.3 to 4.6 dBA. The noise increase experienced at the nearest sensitive receptor to Marina Green would be reduced from 8.1 to 4.4 dBA. Consequently, with mitigation, ambient noise levels at the nearest residential receptor would be less than 5 dBA above ambient levels during operation of generators. Additionally, exterior generator noise contributions at Crissy Field Center would be maintained below 60 dBA by restricting the proximity and number of generators in the East Venue area.

As stated in Response NO-6, the EIR text in Table 5.7-8 on page 5.7-45 is revised as follows:

TABLE 5.7-8 [REVISED]
MODELED AC34 TRAFFIC LDN NOISE LEVELS FOR 2013

Roadway Segment	Existing	Existing plus Proposed AC34 Project	dBA Difference	Significant Increase?
Weekday PM Noise Levels				
Alexander Avenue from Bunker Road to U.S. 101	63.6	63.8	+0.2	No
Alexander Avenue from East Road to Edwards Avenue	62.7	63.2	+0.5	No
Weekend Midday Peak Noise Levels				
Alexander Avenue from Bunker Road to U.S. 101	64.9	66.2	+1.3	No
Alexander Avenue from East Road to Edwards Avenue	62.6	64.1	+1.5	No

City staff has revised EIR page 5.7-56, Impact C-NO, as follows to clarify the cumulative impact analysis:

> **Impact C-NO: The AC34 project, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts on noise; but Cruise Terminal project ~~Project~~-related traffic, in combination with other past, present, and reasonably foreseeable future projects, would result in significant and unavoidable adverse cumulative noise impacts. (AC34 project: Less than Significant with Mitigation; Cruise Terminal project: Significant and Unavoidable ~~with Mitigation~~)**
>
> *Cumulative Construction Impacts — AC34 Project*

City staff has revised the first heading on EIR page 5.7-57, as follows to clarify the cumulative impact analysis.

> *Cumulative Operational Impacts — Cruise Terminal Project*

City staff has revised the second heading on EIR page 5.7-57, as follows to clarify the cumulative impact analysis:

> *AC 34 Project Mitigations:*
>
> - **Mitigation Measure M-NO-1a: Noise Controls During Construction**
> - **Mitigation Measure M-NO-1b: Pile Driving Noise-Reducing Techniques and Muffling Devices**
> - **Mitigation Measure M-NO-3: Pre-Construction Assessment to Minimize Structural Pile-Driving Vibration Impacts on Adjacent Historic Buildings and Structures and Vibration Monitoring**

Section 5.8 Air Quality

City staff has added the following text to page 5.8-20, end of the fifth paragraph:

> Please see also Chapter 12 of this document, which includes augmented description of the methodology and approach to analysis.

As discussed in Response AQ-5, the EIR text on page 5.8-27 is revised in the first paragraph under "Impact Summary" as follows:

> **Impact Summary**
>
> Construction of the America's Cup facilities would result in emission of NOx that would exceed BAAQMD thresholds of significance, a *significant* impact. Implementation of **Mitigation Measure M-AQ-2a** (Construction Vehicle Emissions Minimization), ~~and~~ **M-AQ-2b** (Off-Road Construction Equipment), **M-AQ-2c** (Off-Road Construction Equipment - Electricity Use), **M-AQ-2d** (Off-Road Construction Equipment Best Management Practices), **M-AQ-2e** (Off-Road Construction Equipment, Engine Standards for Harbor Craft Used in Construction), and **M-AQ-2f** (Fuels for Off-Road Construction Equipment) would reduce the severity of the impact. These measures would require~~ing~~ use of off-road equipment that meets the most stringent U.S. EPA standards, best management practices, and biodiesel fuels, as available, as well as use of hydropower electricity where available and propane- instead of diesel-powered generators; in addition, the project would be subject to ~~and~~ the requirements specified under the Clean Construction Ordinance ~~would reduce the severity of the impact~~. However, as discussed below, the ability of the mitigation measures to reduce the impact to less than significant depends on the feasibility of implementing the measures.

As discussed in Response AQ-5, the Mitigation Measure M-AQ-2b on page 5.8-28 of the EIR is amended as indicated below:

> **Mitigation Measure M-AQ-2b: Off-Road Construction Equipment**
>
> The project sponsors shall ensure that construction contract specifications include a requirement that all off-road construction equipment ~~used for AC34 improvements~~ be equipped with diesel engines meeting USEPA Tier 3 standards for NOx and PM (Tier 2 standards if greater than 750 hp) ~~diesel engines~~ or better ~~to the extent feasible~~. The following types of equipment [6] were identified as available for rental in Tier 3 models, or are candidates for retrofitting with emissions control technology, due to their expected operating modes (i.e., fairly constant use at high revolution per minute):
>
> - Excavators
> - Backhoes
> - Rubber-Tired Dozers
> - Concrete Boom Pumps
> - Concrete Trailer Pumps
> - Concrete Placing Booms
> - Compressors
> - Soil Mix Drill Rigs
> - Soldier Pile Rigs
> - Shoring Drill Rigs

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[6] http://tier3rental.com/

At construction locations where power demands allow it, propane generators shall be used in lieu of diesel powered generators. ~~All diesel~~Diesel generators used for project construction shall meet Tier 4 emissions standards ~~to the extent feasible~~.

~~To the extent that the above listed types of equipment are used for project construction, those equipment types shall be required to meet NOx emission standards equivalent to Tier 3 (Tier 2 if greater than 750 horsepower) engines, if feasible~~.

In addition to the Tier 3 emissions standard requirement, all equipment must be equipped with a CARB Level 3 Verified Diesel Emission Control System (VDECS) for PM control, where feasible. The construction contractor shall provide proof in the form of a manufacturer's engineering evaluation or other proof to the satisfaction of the Environmental Review Officer that a CARB-verified Level 3 VDECS is not feasible for a particular equipment type.

Should it be determined by the construction contractor or its subcontractors that compliance with the emissions control requirements of this mitigation measure is infeasible for any of the above-listed construction equipment, the construction contractor shall demonstrate an alternative method of compliance that achieves an equivalent reduction in the project's fleetwide NOx and PM emissions. If alternative means of compliance with the emissions exhaust requirements are further determined to be infeasible, t~~T~~he construction contractor shall document, to the satisfaction of the Environmental Review Officer, that the contractor has complied with this mitigation measure ~~to the extent feasible and indicate why full compliance with the mitigation measure is infeasible~~.

As discussed in Response AQ-5, the following new mitigation measures are inserted after "Analysis of Mitigation Measure M-AQ-2b" on page 5.8-29 as indicated below:

Mitigation Measure M-AQ-2c: Off-Road Construction Equipment - Electricity Use

Hydropower electricity supplied by a public utility shall be used where available at pier construction sites in lieu of temporary diesel or gasoline-powered generators and compressors. Existing utility service or temporary new utility service shall be the preferred power alternative, unless proven infeasible at each location where generators are proposed.

Analysis of Mitigation Measure M-AQ-2c: Operation of diesel powered generators and compressors account for 47 percent of construction-related NOx emissions and 61 percent of construction-related DPM emissions in 2012. Consequently, use of electricity and electrical compressors, particularly at Pier 27 would substantially reduce construction-related emissions in 2012 by up to 10.6 tons per year (58 pounds per day) of NOx and 1.0 ton per year (5.4 pounds per day) of DPM, assuming all compressors are electrically powered and no generators are required.

Mitigation Measure M-AQ-2d: Off-Road Construction Equipment - Best Management Practices (BMPs)

The following types of measures are required on construction equipment:

3. Use of CARB-verified diesel oxidation catalysts and catalyzed diesel particulate traps if not already included in the design of the equipment to meet Tier 3 standards, or not already required as part of Mitigation Measure M-AQ-2b above.

4. Install high-pressure fuel injectors on construction equipment vehicles.

5. Provide on-site services to minimize truck traffic in or near residential areas, including, but not limited to, the following services: meal or cafeteria services, automated teller machines, etc.

The Port shall implement a process by which to select additional BMPs to further reduce air emissions during construction. The Port shall determine the BMPs once the contractor identifies and secures a final equipment list.

Analysis of Mitigation Measure M-AQ-2d: These operational best management practices would result in a marginal reduction of construction related emissions but for the purposes of residual impact assessment, these resulting reductions are considered minor and are not quantified.

Mitigation Measure M-AQ-2e: Off-Road Construction Equipment - Engine Standards for Harbor Craft Used in Construction

All harbor craft with C1 or C2 marine engines used in construction must utilize a USEPA Tier-3 engine, or cleaner, if feasible.

Should it be determined by the construction contractor or its subcontractors that compliance with the emissions control requirements of this mitigation measure is infeasible for any of the harbor craft used in construction, the construction contractor shall demonstrate an alternative method of compliance that achieves an equivalent reduction in the project's fleetwide NOx emissions. If alternative means of compliance with the emissions exhaust requirements are further determined to be infeasible, the construction contractor shall document, to the satisfaction of the Environmental Review Officer, that the contractor has complied with this mitigation measure to the extent feasible and indicate why full compliance with the mitigation measure is infeasible.

Analysis of Mitigation Measure M-AQ-2e: Operation of harbor craft (tugs and service boats) used for construction account for 68 percent of construction-related NOx emissions and 62 percent of construction-related DPM emissions in 2013. Tier 3 engines reduce NOx emissions by 67 percent over the standard pre-year 2000 engines, while DPM emissions would be reduced by 84 percent. Consequently, this measure would substantially reduce construction-related emissions in 2013 by up to 12.5 tons per year of NOx and 0.6 ton per year of DPM.

Mitigation Measure M-AQ-2f: Fuels for Off-Road Construction Equipment

The project sponsors shall ensure that construction contract specifications include a requirement that all off-road construction equipment used for AC34 improvements be fueled with propane or biodiesel (B20 blended with California on-road diesel) unless precluded by engine type or warranty.

Analysis of Mitigation Measure M-AQ-2f: Use of 20 percent blended biodiesel in construction equipment would reduce emissions of ROG by 13 percent, reduce emissions of DPM by 7 percent but increase NOx by 3 percent. This measure would reduce construction-related emissions by up to 3.1 pounds per day of ROG and 0.7 pounds per day of DPM. NOx emissions would increase by 4.8 pounds per day. Consequently, implementation of Measure M-AQ-2f would result in a slight reduction in the significant construction-related health and risk impacts presented in Impact AQ-3 of the EIR (acute hazard index in excess of 1.0) and slightly exacerbate the significant regional pollutant significant impact identified in Impact AQ-2 of the Draft EIR (NOx emissions in excess of 54 pounds per day).

City staff has revised Table 5.8-6 on EIR page 5.8-30, as follows to incorporate the project updates:

TABLE 5.8-6 [REVISED]
MAXIMUM LIFETIME EXCESS CANCER RISK, CHRONIC AND ACUTE NON-CANCER HAZARD QUOTIENT, AND $PM_{2.5}$ CONCENTRATIONS FOR AC34 CONSTRUCTION

Endpoint	AC34 Construction	BAAQMD Threshold
Residential Receptors		
Lifetime Excess Cancer Risk[a]	4.0	10
Chronic Hazard Index[a]	0.007	1
Acute Hazard Index[a,b]	3.4~~10~~	1
$PM_{2.5}$ Concentration[a] [μg/m^3]	0.03	0.3

NOTES:
BAAQMD = Bay Area Air Quality Management District; μg/m3 = micrograms per cubic meter;
PM = particulate matter

[a] The location of each maximum may not be in the same location, therefore values are not additive.
[b] Since construction and operational activities would not be occurring at the same time, the acute hazard index should not be added across categories.

SOURCE: ENVIRON, 2011

City staff has revised emission data in Table 5.8-7 on page 5.8-33 as follows to incorporate the project updates:

TABLE 5.8-7 [REVISED]
AC34 AVERAGE DAILY AND MAXIMUM ANNUAL OPERATIONAL EMISSIONS

	Average Daily Emissions (pounds/day)			
	ROG	**NOx**	**PM10**	**PM2.5**
Race Operations				
Race Sponsored Vessels	9	102	4	4
Race Support Vessels	~~875~~285	~~104~~122	~~155~~2	~~143~~2
Small Private Vessels	~~1,272~~161	~~198~~15	~~212~~8	~~195~~8
Large Private Vessels	22	244	10	10
Assist Tugs	0	1	0	0
Other Sources[a]	21	174	5	5
Shoreside Power Temporary Decommissioning (2013)	~~4~~8	~~94~~221	~~2~~6	~~2~~6
Overall Spectator Traffic	30	62	4	4
Total Overall (2012+2013)	~~2,233~~536	~~979~~941	~~392~~39	~~362~~39
BAAQMD Threshold	54	54	82	54
Above Threshold?	Yes	Yes	~~Yes~~No	~~Yes~~No

	Maximum Annual Emissions (short tons/year)			
	ROG	**NOx**	**PM10**	**PM2.5**
2012 Race Operations				
Race Sponsored Vessels	1	6	0	0
Race Support Vessels	11~~37~~	5~~4~~	0~~6~~	0~~6~~
Small Private Vessels	8~~83~~	1~~12~~	0~~13~~	0~~12~~
Large Private Vessels	0	0	0	0
Assist Tugs	0	0	0	0
Other Sources[a]	1	8	0	0
Spectator Traffic	2	4	0	0
2012 Total	23~~124~~	24~~35~~	1~~20~~	1~~18~~
BAAQMD Threshold	10	10	15	10
Above Threshold?	Yes	Yes	No~~Yes~~	No~~Yes~~
2013 Race Operations				
Race Sponsored Vessels	1	17	1	1
Race Support Vessels	53~~157~~	22~~19~~	1~~28~~	1~~26~~
Small Private Vessels	28~~200~~	3~~32~~	1~~34~~	1~~31~~
Large Private Vessels	5	54	2	2
Assist Tugs	0	0	0	0
Other Sources[a]	4	31	1	1
Shoreside Power Temporary Decommissioning (2013)	~~1~~2	~~21~~49	~~0~~1	~~0~~1
Spectator Traffic	5	10	1	1
2013 Total	~~372~~98	~~183~~176	8~~67~~	8~~62~~
BAAQMD Thresholds	10	10	15	10
Above Threshold?	Yes	Yes	No~~Yes~~	No~~Yes~~

NOTES:

BAAQMD = Bay Area Air Quality Management District

[a] Other sources include boat lifts, generators, helicopters, and truck trips.

SOURCE: ENVIRON, 2011

As discussed in Response AQ-5, the EIR text on page 5.8-34 is revised by inserting new text following the second paragraph as follows:

Impact Summary

Operational emissions of the America's Cup races would result in criteria pollutant emissions that would exceed BAAQMD significance criteria, a *significant* impact. These operational emissions would be temporary and limited to the duration of the AC34 events in 2012 and 2013. **Mitigation Measure M-AQ-4a** (Emission Controls for Race-Sponsored Spectator and Support Vessels) would reduce emissions of ROG, NOx, PM_{10}, and $PM_{2.5}$ from those presented in Table 5.8-7. However, this measure would only apply to commercial, race-sponsored and support vessels that would be under the contract authority of the Event Authority and could not be implemented on private vessels. ~~Race-sponsored spectator vessels (i.e., charters) would be regulated at the state and federal levels, rendering implementation of mitigation measures for emissions reductions from these vessels infeasible.~~ As discussed in more detail in **Mitigation Measure M-AQ-4a** (Emission Controls for Race-Sponsored Spectator and Support Vessels), the percent reduction needed to avoid a significant impact for ROG, NOx, and particulate matter would not be attainable. Because the predominant source of the emissions would be from private ~~and race-support~~ vessels for which emissions control is regulated at the state and federal levels, a reduction to levels below the significance thresholds would not be possible.

Implementation of **Mitigation Measure M-AQ-4b** (Temporary Shoreside Power for Large, Private Yachts at Pier 27) would reduce emissions of ROG, NOx, PM_{10}, and $PM_{2.5}$ from those presented in Table 5.8-7, but even with shoreside power use, it is assumed these vessels would still use auxiliaries while the main engines are running. While this mitigation measure would provide an incremental reduction in emissions, a reduction to levels below the significance thresholds would not be possible.

Implementation of **Mitigation Measure M-AQ-4c** (Alternative Low-Emission Fuels for Large Private Yachts and Race-Sponsored Vessels) would reduce emissions of hydrocarbons and PM_{10} from vessels. While this mitigation measure would provide an incremental reduction in emissions, a reduction to levels below the significance thresholds would not be possible.

Implementation of **Mitigation Measure M-AQ-4d** (Return of Pier 27 to the Port Within One Month after Completion of the Match for Reconnection of Shoreside Power) would expedite construction of Phase 2 cruise terminal improvements, including the installation of upgraded shoreside power. This measure could potentially allow shore power to be reconnected in time for the 2014 cruise season, reducing the duration of the decommissioning of shoreside power for cruise ships. This mitigation measure would preclude the feasibility of the Pier 27 Shed Variant of the James R. Herman Cruise Terminal.

Implementation of **Mitigation Measure M-AQ-4e** (Long-term Shoreside Power at Pier 70) would offset operational emissions of ROG, NOx, PM_{10}, and $PM_{2.5}$ from those presented in

Table 5.8-7. Emissions of NOx, PM_{10}, and $PM_{2.5}$ in 2012 and 2013 would be reduced to a less than significant level. Emissions of ROG, primarily generated by private spectator vessels and Tier 4 race support vessels, would remain significant and unavoidable.

Therefore, this impact, while limited to the duration of the few months in 2012 and 2013 when the AC34 events are scheduled, is considered *significant and unavoidable with mitigation.*

As discussed in Response AQ-5, Mitigation Measure M-AQ-4, page 5.8-34, is amended as indicated below to include not only race sponsored vessels but also race support vessels as a condition of venue leases:

Mitigation Measure M-AQ-4a: Emission Controls for Race-Sponsored Spectator and Support Vessels

The project sponsor shall require all contracts for race-sponsored spectator vessels and venue leases for race support vessels to meet U.S. EPA Tier 3 or better engine standards for marine diesel engines, as feasible. Tier 3 and Tier 4 engines would reduce ROG and NOx emissions by approximately 42 percent over Tier 1 engines and PM emissions by 78 percent over Tier 1 engine emissions.[37]

Should it be determined by the project sponsor that availability of vessels with Tier 3 or Tier 4 engines for use as race-sponsored spectator vessels renders this mitigation measure infeasible, this lack of availability must be demonstrated, to the satisfaction of the Environmental Review Officer, indicating that the project sponsor has complied with this mitigation measure to the extent feasible and why full compliance with the mitigation measure is infeasible.

Analysis of Mitigation Measure M-AQ-4a: For the purposes of this mitigation measure, "feasibility" refers to the availability of commercial ships that meet Tier 3 and Tier 4 standards that are available for lease to the project sponsor. It should be noted that it is likely that ships used for race-sponsored spectator vessels would be limited to those locally available within the San Francisco Bay Area so as to avoid additional emission impacts associated with bringing distant berthed vessels into use. Therefore, this mitigation measure would likely have limited feasibility. As a result, the reduction of ROG emissions by 98 percent, NOx emissions by 94 percent, and $PM_{2.5}$ emissions by 85 percent as necessary to reduce AC34 operational emissions to less-than-significant levels is not reasonably attainable, and this impact is identified as significant and unavoidable.

This measure would only apply to commercial, race-sponsored vessels that would be under the contract authority of the project sponsor and could not be implemented on private vessels outside of the existing implementation schedule for marine diesel engines. Even so, the emissions reduction needed to avoid significant criteria air pollutant impacts would not be attainable because the predominant source of the emissions would be from private and race-sponsored spectator vessels (i.e., charters) for which emissions control is regulated at the state and federal levels. Therefore, reductions to levels below the significance thresholds would not be possible and this impact would be *significant and unavoidable with mitigation.*

As discussed in Response AQ-5, the following four new mitigation measures are added to page 5.8-35, following *Analysis of Mitigation Measure M-AQ-4a,* to augment Mitigation Measure M-AQ-4a, as indicated below:

Mitigation Measure M-AQ-4b: Temporary Shoreside Power for Large Private Yachts at Pier 27

The project sponsor shall install shoreside electrical power at Pier 27 to serve large, private spectator vessels during the AC34 2013 events. Shoreside power shall be supplied by a publicly owned utility supplying hydropower, if available at rates and service levels equivalent to a private utility.

If shoreside power is available at berths used by large, private spectator vessels, the project sponsor shall impose as a requirement in any berthing contract with large, private spectator vessels a requirement to use shoreside power, if such vessels are so equipped.

Analysis of Mitigation Measure M-AQ-4b: Emissions presented in Table 5.8-7 for large private yachts assume that these vessels would operate primary engines 4 hours per day and auxiliary engines 8 hours per day. Provision of temporary shoreside power at Pier 27 during the AC34 events, assuming these vessels are able to utilize shoreside power at berth, is estimated to reduce use of auxiliary engine from 8 hours to 4 hours and would result in emissions reductions. Emissions are estimated to be reduced from 4.9 to 4.3 tons per year for ROG (a 12.2 percent reduction), from 54.2 to 50.3 tons per year for NOx (a 7.1 percent reduction), and from 2.2 to 2.0 tons per year for both PM_{10} and $PM_{2.5}$ (an 8.8 percent reduction). These reductions assume these vessels would still use auxiliaries while the main engines are running. While this mitigation measure would provide an incremental reduction in emissions, a reduction to levels below the significance thresholds would not be possible.

Mitigation Measure M-AQ-4c: Alternative Low-Emissions Fuels for Large Private Yachts and Race-Sponsored Vessels

The project sponsor shall impose as a requirement in any berthing contract with large, private spectator vessels and in any contract with race-sponsored vessels, a requirement to use B20 biodiesel or higher, unless precluded by engine type or warranty, or availability. If biodiesel is precluded, such contracts shall require use of California on-road diesel.

Should it be determined by the project sponsor that availability or compatibility of biodiesel with vessel engines or warranties renders this mitigation measure infeasible, this lack of availability or compatibility must be demonstrated, to the satisfaction of the Environmental Review Officer, indicating that the project sponsor has complied with this mitigation measure to the extent feasible and why full compliance with the mitigation measure is infeasible.

Analysis of Mitigation Measure M-AQ-4c: The potential emissions reductions based on requiring all large private yachts to use either California on-road diesel or 20 percent biodiesel (B20) blended with CA on-road diesel were estimated, and the results are summarized in **Table 5.8-7A**. Higher percentage biodiesel was not analyzed on the understanding that biofuel blends higher than B20 may cause operational problems and/or

TABLE 5.8-7A [NEW]
EMISSIONS BENEFITS FROM ALTERNATIVE FUELS

Fuel	Percent Reduction			
	HC	CO	NOx	PM
CA On-road Diesel (15 ppm S)	N/A	N/A	0%	4%
B20 (clean diesel blend)	13%	8%	-3%	10%

NOTES:

Original analysis assumed 225 ppm S content diesel fuel.

N/A= not available as ARB Harbor Craft rule only evaluated NOx and PM (http://www.arb.ca.gov/regact/2007/chc07/appb.pdf, pages B-22 & B-23)

CA On-road Diesel: 15ppm Sulfur content, effective since 2007

B20 (clean diesel blend): 20% soy-based fuel blending with clean diesel (meeting CA on-road standard), as per ARB biodiesel guidance (http://www.arb.ca.gov/fuels/diesel/altdiesel/20111003Biodiesel%20Guidance.pdf).

Negative % reduction for NOx indicates that NOx increases by burning biodiesel

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engine warranty nullifications unless approved by the manufacturer. While this mitigation measure would provide an incremental reduction in emissions, a reduction to levels below the significance thresholds would not be possible.

Mitigation Measure M-AQ-4d: Return Pier 27 to the Port Within One Month after Completion of the Match for Reconnection of Shoreside Power

The project sponsor shall reconnect shoreside power and complete Phase 2 construction of the James R. Herman Cruise Terminal and reconnection of shoreside power at Pier 27 not later than April 1, 2014, if feasible. To accommodate construction of Phase 2 improvements to the Cruise Terminal and reconnection of shoreside power, the Event Authority shall return Pier 27 to the Port within one month of the completion of the Match.

Subsequently, the Port shall complete Phase 2 construction of the James R. Herman Cruise Terminal in 2013 to 2014 and reconnect shoreside power at Pier 27 no later than April 1, 2014, if feasible.

Should it be determined by the project sponsor that Phase 2 construction of the James R. Herman Cruise Terminal and reconnection of shoreside power at Pier 27 by April 1, 2014 is infeasible, the project sponsor shall document, to the satisfaction of the Environmental Review Officer, that the project sponsor has complied with this mitigation measure to the extent feasible and indicate why full compliance with the mitigation measure is infeasible.

Analysis of Mitigation Measure M-AQ-4d: This measure could potentially allow shore power to be reconnected in time for the 2014 cruise season, reducing the duration of the decommissioning of shoreside power for cruise ships. However, due to the uncertainties associated with this measure, the potential emissions reductions associated with it are not quantified and the impact of operational criteria pollutant emissions associated with AC34 would remain significant and unavoidable. Implementation of this mitigation measure would preclude the feasibility of the Pier 27 Shed Variant.

Mitigation Measure 4e: Long-term Shoreside Power at Pier 70

The project sponsor shall develop shoreside power at an offsite location that would consist of constructing 12 MW of shoreside power at the Port's Drydock #2 at Pier 70 to serve large cruise, military and other vessels while they are in drydock.

Should it be determined by the project sponsor that this measure is infeasible, the project sponsor shall document, to the satisfaction of the Environmental Review Officer, that the project sponsor has complied with this mitigation measure to the extent feasible and indicate why full compliance with the mitigation measure is infeasible.

Analysis of Mitigation Measure M-AQ-4e: Providing shoreside power for ships brought in for unscheduled maintenance would eliminate the need for auxiliary loads to be supplied by on-board diesel generators. The feasibility of using shore power was assessed for ships undergoing maintenance at the BAE Systems Facility in San Francisco and is presented in Appendix AQ-6 of the Final EIR. Using the low-end projected maintenance schedule for the BAE Systems Facility, the potential emission reduction using shore power for these vessels was conservatively estimated for year 2013, the year for which decommissioning of shore side power at Pier 27 was attributed to AC34 operations. This measure would result in year 2013 emissions reductions of 11 tons of ROG, 215 tons of NOx, and 6 tons per year of PM_{10} and $PM_{2.5}$. These reductions provide for a complete offset of all emissions associated with the disruption of shoreside power at Pier 27 as a result of operation of AC34 events. However, due to funding uncertainties regarding this mitigation measure, this impact remains significant and unavoidable.

City staff has revised EIR pages 5.8-36, starting at the top of the page, and 5.8-37 as follows to incorporate the project updates:

> **Table 5.8-8** presents the incremental cancer risk, the acute hazard index, and $PM_{2.5}$ concentrations associated with AC34 operations, the first two ~~all~~ of which would exceed BAAQMD thresholds as a result of AC34 operational emissions. Additional details regarding the location and magnitude of predicted health risks during AC34 operations are included in a series of example tables in Appendix AQ-2.
>
> Specifically, the estimated values for the spectator MEIs would be an increase in incremental cancer risk of 72 in one million, relative to a threshold of 10 in one million; and an acute hazard index of 3.3 in one million, relative to an acute hazard index threshold of 1~~; and a predicted $PM_{2.5}$ concentration of 3.7 ug/m^3 relative to a $PM_{2.5}$ threshold of 0.3 ug/m^3~~. The MEIs for each of these risk values are not in the same location as different sources (marine vessels vs. boat lifts) are not equally distributed. The corresponding values for the resident-MEIs are 22 in a million, 3.3, and 2.8 ug/m^3, respectively. The predominant source contributing to these relatively high risk values are off-road equipment (such as boat lifts), marine vessels, and gasoline-powered boats. No receptors would exceed the chronic hazard index threshold of 1.

TABLE 5.8-8 [REVISED]
MAXIMUM LIFETIME EXCESS CANCER RISK, CHRONIC AND ACUTE NON-CANCER HAZARD QUOTIENT, AND $PM_{2.5}$ CONCENTRATIONS FOR AC34 OPERATIONS AND 2013 LOSS OF SHORESIDE POWER

Endpoint	Operational	BAAQMD Threshold
a) Residential Receptors		
Lifetime Excess Cancer Risk[a]	15~~22~~	10
Chronic Hazard Index[a]	0.04~~0.12~~	1
Acute Hazard Index[a]	2.4~~3.3~~	1
$PM_{2.5}$ Concentration[a] [$\mu g/m^3$]	0.2~~2.8~~	0.3
b) All Receptors (Residential and Spectator)		
Lifetime Excess Cancer Risk[a]	63~~72~~	10
Chronic Hazard Index[a]	0.16~~0.3~~	1
Acute Hazard Index[a,b]	2.5~~3~~	1
$PM_{2.5}$ Concentration[a] [$\mu g/m^3$]	0.7~~3.7~~	0.3

NOTES:
BAAQMD = Bay Area Air Quality Management District; μg/m3 = micrograms per cubic meter;
PM = particulate matter

[a] The location of each maximum may not be in the same location, therefore values are not additive.

SOURCE: ENVIRON, 2011

As a staff-initiated text change, and as discussed in Response AQ-5, the EIR text on page 5.8-37 is revised starting with the third paragraph and continuing on page 5.8-38 as follows:

> AC34 operations are predicted to exceed BAAQMD risk and hazard criteria for incremental cancer risk, and ~~,~~ acute hazard indices and would therefore represent a significant impact on local receptors. Construction and operations of AC34 (as well as the cruise terminal) would require the permanent relocation of existing tenants. Of the existing tenants at Pier 27, only Bauer Transportation would represent a localized pollutant source as the result of operations of diesel-powered transport vehicles. The relocation of the Bauer Transportation facility from Pier 27 to Pier 50 would reduce diesel emissions and their associated risks for receptors in the vicinity of the site of Pier 27, though it would increase emissions in the vicinity of Pier 50. Risks associated with both locations were modeled in AERMOD assuming 50 round trips per day. Removal of the facility at Pier 27 would result in a net decrease of emissions; hence it would not result in additional cancer risks. Based on the analysis, Bauer Transportation operations emissions in its new location generate a localized cancer risk of 5.1 in one million, an acute hazard index of 0.01, a chronic hazard index of 0.001, and $PM_{2.5}$ concentrations of 0.006, which are below the BAAQMD's project level thresholds at the maximally exposed sensitive receptor.

Impact Summary

Based on conservative assumptions, operations of the proposed America's Cup races and events would result in incremental cancer risks, and acute hazard indices~~, and localized PM$_{2.5}$ concentrations~~ in excess of significance thresholds adopted by the BAAQMD and would represent a significant impact on localized air quality. **Mitigation Measure M-AQ-4a through M-AQ-4e** ~~(Emission Controls for Race-Sponsored Spectator Vessels)~~ would reduce emissions from race-sponsored spectator and support vessels, provide shoreside power for large private yachts at Pier 27, require low-emissions fuels of large private yachts and race-sponsored vessels, accelerate the reconnection of long-term shoreside power at Pier 27, and provide off-site emissions reduction by providing shoreside power at Pier 70. **Mitigation Measure M-AQ-5** (Clean Sources ~~Diesel Engines~~ for Temporary Power at Venues), below, would reduce emissions from diesel generators. However, identified mitigation measures would not reduce the predicted impact to a less-than-significant level, and therefore, the impact would be *significant and unavoidable with mitigation.*

Mitigation Measure M-AQ-5: ~~Clean Diesel~~ Clean Sources ~~Engines~~ for Temporary Power at Venues

> The project sponsor shall ensure that all ~~diesel generators~~ electricity used at AC34 event and viewing locations is supplied by a public utility that provides hydropower, if available, or available alternative power supply. If use of utility-supplied electricity is infeasible, the project sponsor shall utilize natural gas or propane-powered generators, where power demands allow. If use of propane or natural gas generators is infeasible then the project sponsor shall ensure that all diesel generators at AC34 event and viewing locations shall ~~will~~ conform to a level of performance equivalent to a Tier 4 interim, or Tier 2/ Tier 3 (as applicable, depending on power rating) engine fitted with a CARB-verified diesel emissions control ~~Level 3 Verified Diesel Emissions Control (~~(VDEC~~)~~, which would reduce diesel particulate emissions by at least 85 percent. ~~Alternatively, natural gas or gasoline-powered generators may be used in lieu of diesel generators, thus eliminating DPM emissions from generators, as feasible.~~
>
> Should it be determined by the project sponsor that utility supplied electricity or ~~"tiered" diesel engine~~ generators powered by natural gas or propane are unavailable or infeasible ~~gasoline-powered generators would not provide the necessary power demands required~~, this lack of availability or infeasibility must be demonstrated to the satisfaction of the Environmental Review Officer, indicating that the project sponsor has complied with this mitigation measure to the extent feasible and why full compliance with the mitigation measure is infeasible.

City staff has revised emission data in Table 5.8-9 on page 5.8-46 as follows to incorporate the project updates:

TABLE 5.8-9 [REVISED]
PHASE 2 CRUISE TERMINAL AND WHARF PLAZA
AVERAGE DAILY CONSTRUCTION-RELATED EMISSIONS

	Average Daily Construction Emissions (pounds/day)			
	ROG	**NOx**	**PM10**	**PM2.5**
Cruise Terminal				
Building interior construction	18	32	2	2
Shoreside power decommissioning; 2012	4 10	~~114~~ 270	~~2~~ 8	~~2~~ 7
Total	~~22~~ 28	~~146~~ 302	4 10	~~4~~ 9
BAAQMD Threshold	54	54	82	54
Above Threshold?	No	Yes	No	No

SOURCE: ESA, 2011

As discussed in Response AQ-5, the EIR text under Impact AQ-10 on page 5.8-46 is revised by inserting the following text in the second paragraph:

> **Impact Summary**
>
> Phase 2 construction of the Cruise Terminal project would emit NOx above BAAQMD thresholds of significance, and therefore the impact in relation to air quality standards would be *significant*. **Mitigation Measure M-AQ-4d** (Return Pier 27 to the Port Within One Month after Completion of the Match for Reconnection of Shoreside Power) is identified to accelerate replacement of shoreside power for the 2014 cruise season, reducing the duration of emissions incurred by the loss of shoreside power during construction. **Mitigation Measure M-AQ-4e** (Long-term Shoreside Power at Pier 70) would offset the significant regional NOx impact identified in Impact AQ-10. Further, ~~I~~implementation of the Clean Construction Ordinance and **Mitigation Measures M-AQ-2a** (Construction Vehicle Emissions Minimization), ~~and~~ **M-AQ-2b** (Off-Road Construction Equipment), **M-AQ-2c** (Off-Road Construction Equipment - Electricity Use), **M-AQ-2d** (Off-Road Construction Equipment - Best Management Practices), and **M-AQ-2f** (Fuels for Off-Road Construction Equipment) would further reduce construction exhaust emissions. ~~However,~~ NOx emissions associated with decommissioning of shoreside power ~~w~~could be reduced to below ~~exceed~~ BAAQMD significance thresholds. However, due to funding uncertainties regarding this mitigation measure this impact is *significant and unavoidable.*
>
> **Mitigation Measure M-AQ-4d: Return Pier 27 to the Port Within One Month after Completion of the Match for Reconnection of Shoreside Power** (see above)
>
> **Mitigation Measure M-AQ-4e: Long-term Shoreside Power at Pier 70** (see above)
>
> ***Analysis of Mitigation Measure M-AQ-4e***: Providing shoreside power for ships brought in for unscheduled maintenance and would eliminate the need for auxiliary loads to be supplied by on-board diesel generators. The feasibility of using shore power was assessed for ships undergoing maintenance at the BAE Systems Facility in San Francisco and is presented

in Appendix AQ-6 of the Final EIR. Using the low-end projected maintenance schedule for the BAE Systems Facility, the potential emission reduction using shore power for these vessels was conservatively estimated for year 2012, the year for which decommissioning of shore side power at Pier 27 was attributed to Cruise Terminal construction. This measure would result in year 2012 emissions reductions of 9 tons of ROG, 176 tons of NOx, and 5 tons per year of PM_{10} and $PM_{2.5}$. These reductions provide for more than enough to offset all emissions associated with the disruption of shoreside power at Pier 27 as a result of construction of the new cruise ship terminal. However, due to funding uncertainties regarding this mitigation measure, this impact remains significant and unavoidable.

Mitigation Measure M-AQ-2a: Construction Vehicle Emissions Minimization (see above)

Mitigation Measure M-AQ-2b: Off-Road Construction Equipment (see above)

Mitigation Measure M-AQ-2c: Off-Road Construction Equipment - Electricity Use (see above)

Mitigation Measure M-AQ-2d: Off-Road Construction Equipment - Best Management Practices (see above)

Mitigation Measure M-AQ-2f: Fuels for Off-Road Construction Equipment (see above)

City staff has revised data in Table 5.8-10 on page 5.8-48 as follows to incorporate the project updates and as discussed in Response AQ-2, the table title and heading are revised:

TABLE 5.8-10 [REVISED]
MAXIMUM LIFETIME EXCESS CANCER RISK, CHRONIC AND ACUTE NON-CANCER HAZARD QUOTIENT, AND $PM_{2.5}$ CONCENTRATIONS FOR CRUISE TERMINAL AND ~~2013~~ 2012 LOSS OF SHORESIDE POWER

Endpoint	Cruise Terminal Construction	Impact from Loss of Shoreside Power (2012)	Total Risks and hazards (Construction and additional year of Shoreside Power Loss)	BAAQMD Threshold
Residential Receptors				
Lifetime Excess Cancer Risk	0.5	0.68~~0.63~~	1.2~~1.1~~	10
Chronic Hazard Index	0.001	0.002~~0.001~~	0.003~~0.002~~	1
Acute Hazard Index	0.46~~0.1~~	- - [a]~~a0.25~~	0.46~~0.35~~	1
$PM_{2.5}$ Concentration [μg/m^3]	0.005	0.008	0.013	0.3

NOTES:
BAAQMD = Bay Area Air Quality Management District; μg/m3 = micrograms per cubic meter; PM = particulate matter
a Acute hazard is based on maximum 1-hr emissions. These would not change relative to the baseline year (2011) in 2012 (i.e. one vessel at Pier 27 and one vessel at Pier 35, both hotelling without shorepower, same emission factors for both years).

SOURCE: ENVIRON, 2011

As discussed in Response AQ-4, the EIR text on page 5.8-50, at the end of the second full paragraph of Impact AQ-15, is revised as follows:

As discussed previously, the CARB implemented the Commercial Harbor Craft Regulation in January 2009 to reduce emissions of DPM and oxides of nitrogen (NOx) from diesel engines used on commercial harbor craft operated in California Regulated Waters. California Regulated Waters are all internal waters, estuarine waters, ports and coastal waters within 24 nautical miles of the California coast. The regulation includes requirements for new and in-use (existing) engines as well as monitoring, recordkeeping, and reporting requirements. These requirements will result in a gradual reduction in emissions from tug boats guiding cruise ships to port at ~~associated with~~ the cruise terminal and associated risk and hazards.

City staff has revised data in Table 5.8-11 on page 5.8-50, as shown on the following page, to incorporate the project updates.

TABLE 5.8-11 [REVISED]
MAXIMUM LIFETIME EXCESS CANCER RISK, CHRONIC AND ACUTE NON-CANCER HAZARD QUOTIENT, AND PM2.5 CONCENTRATIONS FOR CRUISE TERMINAL

Endpoint	Cruise Terminal Operation	BAAQMD Threshold
Residential Receptors		
Lifetime Excess Cancer Risk	3.6~~4.1~~	10
Chronic Hazard Index	0.002~~0.001~~	1
Acute Hazard Index	0.3~~0.2~~	1
$PM_{2.5}$ Concentration [μg/m³]	0.006~~0.01~~	0.3

NOTES:
BAAQMD = Bay Area Air Quality Management District; μg/m3 = micrograms per cubic meter; PM = particulate matter

SOURCE: ENVIRON, 2011

City staff has revised emission data in Table 5.8-13 on page 5.8-55 to incorporate the project updates, as shown below:

TABLE 5.8-12 [REVISED]
AC34 AVERAGE DAILY CONSTRUCTION-RELATED EMISSIONS UNDER THE PIER 27 SHED VARIANT

	Average Daily Emissions (pounds/day)			
	ROG	NOx	PM10	PM2.5
Cruise Terminal Phase 1				
Demolition at Piers 27-29	0.2	1	0	0
AC34 Race				
AC34 race construction	8	66	3	3
Temporary decommissioning of shoreside power; 2013	~~3~~7	~~78~~185	~~1~~5	~~1~~5
Total	~~11~~15	~~146~~252	~~5~~8	~~5~~8
BAAQMD Threshold	54	54	82	54
Above Threshold?	No	Yes	No	No

SOURCE: ENVIRON, 2011

TABLE 5.8-13 [REVISED]
CRUISE TERMINAL AND NORTHEAST WHARF PLAZA AVERAGE DAILY CONSTRUCTION-RELATED EMISSIONS UNDER THE PIER 27 SHED VARIANT

	Average Daily Emissions (pounds/day)			
	ROG	NOx	PM10	PM2.5
Cruise Terminal Phase 2				
Shell construction at Piers 27-29	23	127	9	9
Building interior construction	18	32	2	2
Shoreside power temporary decommissioning 2014	~~4~~19	~~114~~268	~~2~~5	~~2~~5
Total	~~45~~50	~~273~~493	~~13~~16	~~13~~9
BAAQMD Threshold	54	54	82	54
Above Threshold?	No	Yes	No	No

SOURCE: ENVIRON, 2011

Q-20, on EIR page 5.8-56, starting with the third full paragraph, as follows to incorporate the project updates:

> The additional year of shore side power decommissioning that would occur in this variant would result in an additional localized cancer risk of 1.8~~0.63~~ in one million, an acute HI of 0.25, a chronic HI of 0.01~~0.001~~, and $PM_{2.5}$ concentration~~s~~ of 0.04~~0.008~~, which by themselves would be below the BAAQMD's project level thresholds at the maximally exposed sensitive receptor. Even with implementation of **Mitigation Measure M-AQ-2a** (Construction Vehicle Emissions Minimization) and **Mitigation Measure M-AQ-2b** (Off-Road Construction Equipment), this variant would result in an incremental increase in the acute hazard index compared to the proposed AC34 and Cruise Terminal projects which would further exceed the acute health index threshold of 1. Therefore, this impact would be *significant and unavoidable.*

As explained in Response IO-6, the first paragraph under "Cumulative Construction Impacts" on EIR page 5.8-62 is revised as follows:

> ***Criteria Air Pollutants and Precursors.*** As indicated in Table 5.1-3, several other construction projects are proposed or likely to occur in the vicinity of the AC34 project sites. Construction emissions from the proposed projects in combination with emission from those projects listed on Table 5.1-3 in the project vicinity with overlapping construction schedules would result in a cumulative, construction-related air quality impact. Projects that would have a high likelihood of occurring simultaneously or overlapping to some extent with AC34 project construction would include Pier 36/Brannan Street Wharf, Downtown Ferry Terminal Project, 8 Washington Street/Seawall Lot 351 project, and improvement projects at Pier 24, Pier 22½, Piers 15 and 17, Piers 19 through 23, and Piers 31-33.

As explained in Response IO-6, the third paragraph under "Cumulative Construction Impacts" on EIR page 5.8-62 is revised as follows:

> ***Toxic Air Contaminants and Respirable Particulate Matter.*** Construction projects that would have a ~~high~~ likelihood of overlapping with or occurring simultaneously with AC34 project construction include Pier 36/Brannan Street Wharf, Downtown Ferry Terminal Project, 8 Washington Street/Seawall Lot 351 project, and improvement projects at Pier 24, Pier 22½, Piers 15 and 17, Piers 19 through 23, and Piers 31-33. Specifically, localized construction-related health risk and hazard impacts of Pier36/Brannan Street Wharf were also determined in its associated EIR to be significant and unavoidable. Similarly, the 8 Washington/Seawall Lot 351 Draft EIR determined that construction health risk impacts would be significant and unavoidable. Consequently, construction emissions of the AC34 project would have the potential to further contribute to this significant impact identified in the Pier36/Brannan Street Wharf and 8 Washington/Seawall Lot 351 EIRs.

City staff has revised Impact C-AQ-1, on EIR page 5.8-62, last paragraph, as follows to incorporate the project updates:

> Construction of the AC34 facilities would result in an increase in the acute hazard index above the BAAQMD's project-level threshold of 1.0. The project alone would increase the acute hazard index to 10. Other nearby sources may also result in acute risks that together would exceed the cumulative acute hazard index of 10. The proposed project's contribution to significant acute risks would be cumulatively considerable. These risks would be reduced by implementation of **Mitigation Measures M-AQ-2a** (Construction Vehicle Emissions Minimization), ~~and~~ **M-AQ2b** (Off-Road Construction Equipment), **Mitigation Measure M-AQ-2c** (Off-Road Construction Equipment - Electricity Use), **M-AQ-2d** (Off-Road Construction Equipment - Best Management Practices), **M-AQ-2e** (Off-Road Construction Equipment - Engine Standards for Harbor Craft Used in Construction), and **M-AQ-2f** (Fuels for Off-Road Construction Equipment), but emissions from construction activities associated with AC34 would not be anticipated to be reduced below the project-level thresholds, resulting in a considerable contribution to a significant and unavoidable cumulative health risk impact.

City staff has revised Impact C-AQ-1, on EIR page 5.8-64, last paragraph, as follows to incorporate the project updates:

> Mitigation measures for cumulative impacts would be the same as those identified for significant unavoidable Impacts AQ-2, AQ-4, and AQ-5. Although AC34 events would be temporary, they are identified as contributing to a significant cumulative air quality operational impact.
>
> > **Mitigation Measure M-AQ-2a: Construction Vehicle Emissions Minimization** (see above)
> >
> > **Mitigation Measure M-AQ-2b: Off-Road Construction Equipment** (see above)

Mitigation Measure M-AQ-2c: Off-Road Construction Equipment - Electricity Use (see above)

Mitigation Measure M-AQ-2d: Off-Road Construction Equipment - Best Management Practices (see above)

Mitigation Measure M-AQ-2e: Off-Road Construction Equipment - Engine Standards for Harbor Craft Used in Construction (see above)

Mitigation Measure M-AQ-2f: Fuels for Off-Road Construction Equipment (see above)

Mitigation Measure M-AQ-4a: Emission Controls for Race-Sponsored Spectator and Support Vessels (see above)

Mitigation Measure M-AQ-4b: Temporary Shoreside Power for Large Private Yachts at Pier 27 (see above)

Mitigation Measure M-AQ-4c: Alternative Low-Emissions Fuels for Large, Private Yachts and Race-Sponsored Vessels (see above)

Mitigation Measure M-AQ-4d: Return Pier 27 to the Port Within One Month after Completion of the Match for Reconnection of Shoreside Power (see above)

Mitigation Measure M-AQ-4e: Long-term Shoreside Power at Pier 70 (see above)

Mitigation Measure M-AQ-5: Clean Sources ~~Diesel~~ for Temporary Power at Venues (see above)

City staff has revised Impact C-AQ-2, on EIR page 5.8-68, starting with the first full paragraph as follows to incorporate the project updates:

> **Cumulative Air Quality Impact Summary**
>
> The proposed Cruise Terminal project would result in -significant construction-related cumulative air quality impacts with regard to regional emissions of criteria pollutants and their precursors in an air basin designated as nonattainment for ozone and particulate matter. Construction-related emissions of NOx would be above significance thresholds established by the BAAQMD to identify a cumulatively considerable contribution to air quality in the region. Mitigation measures for cumulative impacts would be the same as those identified for significant unavoidable Impact AQ-10, but even with implementation of **Mitigation Measure M-AQ-2a** (Construction Vehicle Emissions Minimization), ~~and~~ **M-AQ-2b** (Off-Road Construction Equipment), **M-AQ-2c** (Off-Road Construction Equipment - Electricity Use), **M-AQ-2d** (Off-Road Construction Equipment - Best Management Practices), **M-AQ-2f** (Fuels for Off-Road Construction Equipment), **M-AQ-4d** (Return Pier 27 to the Port Within One Month after Completion of the Match for Reconnection of Shoreside Power), **M-AQ-4e** (Long-term Shoreside Power at Pier 70), these cumulative criteria pollutant impacts would be *significant and unavoidable.*

The proposed Cruise Terminal project would result in less-than-significant construction-related and operational cumulative air quality impacts with regard to localized emissions that would increase cancer risks, health indices, and concentrations of PM$_{2.5}$. These emissions, when combined with other emissions in the project areas, would not contribute considerably to cumulative risks and would result in a less-than-significant cumulative impact with regard to local risks and hazards.

Mitigation Measure M-AQ-2a: Construction Vehicle Emissions Minimization (see above)

Mitigation Measure M-AQ-2b: Off-Road Construction Equipment (see above)

Mitigation Measure M-AQ-2c: Off-Road Construction Equipment - Electricity Use (see above)

Mitigation Measure M-AQ-2d: Off-Road Construction Equipment - Best Management Practices (see above)

Mitigation Measure M-AQ-2f: Fuels for Off-Road Construction Equipment (see above)

Mitigation Measure M-AQ-4d: Return Pier 27 to the Port Within One Month after Completion of the Match for Reconnection of Shoreside Power (see above)

Mitigation Measure M-AQ-4e: Long-term Shoreside Power at Pier 70 (see above)

City staff has revised Impact C-AQ-3, on EIR page 5.8-69, starting with the fourth full paragraph, as follows to incorporate the project updates:

Cumulative Air Quality Impact Summary

The proposed Pier 27 Shed Variant would result in significant construction-related cumulative air quality impacts with regard to regional emissions of criteria pollutants and their precursors in an air basin designated as nonattainment for ozone and particulate matter. Emissions of ROG, NOx. PM$_{10}$, and PM$_{2.5}$ would all exceed significance thresholds established by BAAQMD to identify a cumulatively considerable contribution to air quality in the region. Mitigation measures for cumulative impacts would be the same as those identified for significant unavoidable Impact AQ-19, but even with implementation of **Mitigation Measure M-AQ-2a** (Construction Vehicle Emissions Minimization), ~~and~~ **M-AQ-2b** (Off-Road Construction Equipment), **Mitigation Measure M-AQ-2c** (Off-Road Construction Equipment - Electricity Use), **M-AQ-2d** (Off-Road Construction Equipment - Best Management Practices), and **M-AQ-2f** (Fuels for Off-Road Construction Equipment), these cumulative criteria pollutant impacts would be *significant and unavoidable.*

The proposed Pier 27 Shed Variant would result in construction-related cumulative air quality impacts with regard to localized emissions that would increase acute health indices. These emissions when combined with other emissions in the project areas would exceed the

10 in a million cumulative operational acute health index threshold and result in a significant cumulative impact with regard to local risks and hazards.

Cumulative operational impacts of the Pier 27 Shed Variant would the same as those discussed for the cruise terminal and would be less than cumulatively considerable.

Mitigation Measure M-AQ-2a: Construction Vehicle Emissions Minimization (see above)

Mitigation Measure M-AQ-2b: Off-Road Construction Equipment (see above)

Mitigation Measure M-AQ-2c: Off-Road Construction Equipment - Electricity Use (see above)

Mitigation Measure M-AQ-2d: Off-Road Construction Equipment - Best Management Practices (see above)

Mitigation Measure M-AQ-2f: Fuels for Off-Road Construction Equipment (see above)

Section 5.9 Greenhouse Gases

As discussed in Response GG-1, the following text is inserted on EIR page 5.9-9 after the "Local Regulations" heading:

Marin Countywide Plan

The *Marin Countywide Plan* guides the conservation and development of Marin County. Watershed functions, water quality, riparian habitat, wetlands, and baylands are all addressed in the Natural Systems and Agriculture Element. The topics addressed in this Element are interrelated, as are all the components of natural systems.

Most of the policies in the Natural Systems and Agriculture Element, "Atmosphere and Climate" section of the *Marin Countywide Plan* are not applicable to either (1) greenhouse gas emissions emitted by the AC34 project, or (2) CEQA analysis. The following policy and implementing programs of the *Marin Countywide Plan* Natural Systems and Agriculture Element are relevant to the proposed project:

AIR-4.1 Reduce Greenhouse Gas Emissions. Adopt practices that promote improved efficiency and energy management technologies; shift to low-carbon and renewable fuels and zero emission technologies.

AIR-4.b Reduce Greenhouse Gas Emissions Resulting from Transportation. Increase clean-fuel use, promote transit-oriented development and alternative modes of transportation, and reduce travel demand. (Also see TR-4, AIR-3, DES-2, HS-2, HS-3, CD-2, CD-3, and EC-1.)

> *AIR-4.c Reduce Methane Emissions Released from Waste Disposal.* Encourage recycling, decrease waste sent to landfills, require landfill methane recovery, and promote methane recovery for energy production from other sources. (See PFS-3.)
>
> *AIR-4.g Work with Bay Area Governments to Address Regional Climate Change Concerns.* Play a leading role to encourage other local governments to commit to addressing climate change. Participate in programs such as the Cities for Climate Protection Campaign to address local and regional climate change concerns.

As discussed in Response GG-2b, the text on EIR page 5.9-16, third paragraph, is revised as follows:

> The proposed project would increase the activity in various locations. The 34th America's Cup would increase activity over the two-year course of the event by generating up to 334,000 visitors per day during an average peak race day; by constructing temporary facilities at Marina Green, Aquatic Park, Crissy Field, Fort Mason, Alcatraz, Cavallo Point, Seawall Lot 330, Pier 26, Pier 28, Piers 19 ½ and 19, Pier 23, Pier 80, and various open water areas; and by constructing permanent facilities at Piers 30-32 and Phase 1 of the Cruise Terminal at Piers 27-29. The 34th America's Cup would contribute to annual short-term increases in GHGs as a result of increased vehicle and boat trips (mobile sources), as well as event operations resulting in increased energy use, water use and wastewater treatment, and solid waste disposal. Additionally, the proposed projects would result in a temporary increase in GHG emissions from the decommissioning of shoreside power at Pier 27 for the 2 years during the period that the cruise terminal shell building would be constructed and when AC Village would be located at Pier 27. Construction of temporary and permanent facilities for AC34 would also result in an increase in GHG emissions. These emissions could be partially offset by provision of temporary shoreside power at Pier 27 for large private yachts during the America's Cup event in 2013, or by provision of shoreside power at Pier 70. Please see Section 5.8, Air Quality, Mitigation Measure AQ-4b, for a discussion of these measures.

City staff has revised EIR page 5.9-16, Impact C-GG, as follows to clarify the cumulative impact analysis:

> **Impact C-GG: The proposed projects would not generate greenhouse gas emissions at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing greenhouse gas emissions. (Both Projects: Less than Significant)**

Section 5.10 Wind and Shadow

As discussed in Response WS-4, the EIR text on page 5.10-13, paragraph 5, last line, is revised as follows:

> If a hazardous wind event coincides with public access to this area, safety hazards could result.

City staff has revised EIR page 5.10-16, Impact C-WI, as follows to clarify the cumulative impact analysis.

> **Impact C-WI: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative wind impacts. (Both Projects: Less than Significant)**

City staff has revised EIR page 5.10-16, last paragraph, and page 5.10-17, first paragraph as follows to clarify the cumulative impact analysis:

> The project's wind effects are local, and would be limited to spaces on the site and in its immediate vicinity. Neither ~~T~~the AC34 nor the Cruise Terminal project, with mitigation, would not cause new wind hazards on existing publicly accessible areas or open spaces. As such, the proposed projects would not result in adverse wind impacts that could combine with the potential wind impacts of other foreseeable projects. It can thus be concluded that the proposed projects would not result in cumulatively considerable wind impacts.

City staff has revised EIR page 5.10-20, Impact C-SH, as follows to clarify the cumulative impact analysis:

> **Impact C-SH: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative shadow impacts. (Both Projects: Less than Significant)**

City staff has revised EIR page 5.10-21 as follows to clarify the cumulative impact analysis:

> The project's shadows would be largely confined to spaces on the site and in its immediate vicinity. ~~The~~ Neither project would ~~not~~ shade open spaces protected by Proposition K. As such, the proposed projects would not result in adverse shadow impacts that could combine with the potential shadow impacts of other foreseeable projects. It can thus be concluded that the proposed projects would not result in cumulatively considerable shadow impacts.

Section 5.11 Recreation

As discussed in Response RE-6, the following paragraph is added after the third paragraph on EIR page 5.11-6:

> ***South End Rowing Club and Dolphin Club Facilities.*** The SFRPD leases two buildings located at 500 and 502 Jefferson Street (in the southeastern portion of Aquatic Park) to the South End Rowing Club and the Dolphin Club. The clubs provide boathouses and launching facilities for rowers, kayakers, and canoe paddlers, including providing historic wooden craft for club members' use in the Bay. Other facilities at this location include locker rooms, restroom and shower facilities, lounge areas, and a weight room. Both buildings are open to the public on alternate days each month, Tuesday through Saturday. The South End Rowing Club and Dolphin Club have operated continuously since 1878 and

> 1877, respectively, and have resided in Aquatic Park since the early 1900s. The two clubs have approximately 2,000 members in total. Primary activities hosted by the two clubs include swimming, rowing, handball, running activities, and events both at and in the vicinity of Aquatic Park. Aquatic Park is also commonly used by kayakers. Club members and other recreationists swim in Aquatic Park on a daily basis, generally during the early morning and evening hours. Aquatic Park is more commonly used by swimmers during late summer and early fall, because these are the warm water months. The clubs also sponsor large aquatic events in San Francisco Bay, including the Alcatraz Invitational, the New Year's Day Alcatraz Swim, the Escape from Alcatraz Triathlon, and several other rowing regattas.[3a,3b]

As discussed in Response RE-6, the discussion of recreational activities that occur at Crissy Field is augmented as follows on EIR page 5.11-13:

> ***Crissy Field.*** Located west of the San Francisco Marina and east of the Golden Gate Bridge, Crissy Field features 100 acres of nature-related and history educational opportunities, along with recreation opportunities that include a 22-acre restored tidal marsh and dunes, the scenic Golden Gate Promenade, restored historic airfield, bleachers, and the Crissy Field Center. The Golden Gate Promenade is a segment of the Bay Trail and generally follows the northern edge of Crissy Field. East Beach, located east of the tidal marsh area, consists of several picnic areas, parking, and restroom facilities. East Beach is a popular launching site for windsurfers and kitesurfers. The Crissy Field Center hosts numerous environmental programs for children and families. Other facilities within Crissy Field include the Marine Sanctuary Visitor Center, the Warming Hut Café, and the West Bluff picnic area.[24, 25]

As discussed in Response RE-6, the EIR text on page 5.11-13, last sentence of the fourth full paragraph, is revised as follows:

> ~~Other facilities within Crissy Field include the Marine Sanctuary Visitor Center, the Warming Hut Café, and the West Bluff picnic area.[24 25]~~ Additional indoor recreational facilities exist adjacent to Crissy Field and include a climbing gym, a trampoline park, a bike rental facility, and a swimming pool for aquatic classes.

As discussed in Response RE-6, the following text is added at the end of the fourth paragraph on EIR page 5.11-14:

> In addition, NPS partners that are located and operate within the Marin Headlands include the Marine Mammal Center, Headlands Institute, Headlands Center for the Arts,

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[3a] Dolphin Club website: http://www.dolphinclub.org/about.html, accessed September 26, 2011.

[3b] South End Rowing Club website: http://www.south-end.org/club.shtml, accessed September 26, 2011.

[24] ~~Golden Gate National Recreation Area (GGNRA) maps, available online at http://www.nps.gov/goga/planyourvisit/maps.htm, accessed April 2011.~~

[25] ~~Golden Gate National Parks Conservancy, Crissy Field Center website, http://www.parksconservancy.org/our-work/crissy/, accessed April 2011.~~

> Hostelling International, and YMCA Point Bonita. The NPS operates fee programs, concession operations, and special park uses, such as interpretive walks.

As discussed in Response RE-6, the last sentence of the third full paragraph and the fourth full paragraph on EIR page 5.11-15 is revised as follows:

> The Presidio Trust manages the inland portion (approximately 80 percent) of the Presidio's approximately 1,491 acres, including the portion of Crissy Field from Mason Street south; the coastal areas (approximately 20 percent), including the portion of Crissy Field north of Mason Street, are managed by the NPS.
>
> ~~Attractions at~~ Recreational facilities in the Presidio include the ~~Main Post, the San Francisco National Cemetery, the~~ Presidio Golf Course, the Presidio Bowling Center, ~~the Walt Disney Family Museum,~~ Mountain Lake Park, Rob Hill Campground, the Presidio Community YMCA, and numerous playgrounds, tennis and basketball courts, multiuse fields, picnic areas, ~~scenic overlooks,~~ trails, and bicycle routes~~, and camping areas~~.

As discussed in Response RE-6, Table 5.11-1 on EIR pages 5.11-17 through 5.11-24, is revised as shown on the following page.

As discussed in Response RE-6, the EIR text on page 5.11-25, last paragraph, is revised as follows:

> **Sausalito Marinas**
>
> There are ~~eight~~ nine major marinas in Sausalito: Richardson Bay Marina, Clipper Yacht Harbor, Marina Plaza Harbor, Arques Shipyard and Marina, Schoonmaker Point Marina, ~~Cass' Marina~~ Sausalito Marinways, Sausalito Yacht Harbor, Galilee Harbor, and Pelican Yacht Harbor. See Section 5.16, Hydrology and Water Quality, for the locations of these marinas. For an overview of these marinas, refer to the discussion under the subheading "City of Sausalito," below.

As discussed in Response RE-5, the EIR text on page 5.11-26, fourth paragraph, is revised as follows:

> **Southern Marin County**
>
> ***City of Sausalito.*** In Sausalito, shoreline parks that could provide opportunities for viewing the AC34 race area include ~~Sausalito Town Square (also known as~~ Vina del Mar ~~Plaza)~~, Gabrielson Park, Yee Tok Chee Park, and Tiffany Park, assuming the absence of intervening obstructions on land or in the water. There are also ~~eight~~nine marinas and harbors in the City of Sausalito: Richardson Bay Marina, Clipper Yacht Harbor, Marina Plaza Harbor, Arques Shipyard Marina, Schoonmaker Point Marina, ~~Cass' Marina,~~ Sausalito Marinways, Sausalito Yacht Harbor, Galilee Harbor, and Pelican Yacht Harbor. The Sausalito Yacht Club, located just east of Gabrielson Park, could also provide opportunities for viewing the AC34 races. For an overview of facilities available at these parks and harbors, refer to Table 5.11-1.

TABLE 5.11-1 [REVISED]
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
RECREATIONAL USES IN THE VICINITY OF PORT OF SAN FRANCISCO PIERS, WATER AREAS, AND SEAWALL LOTS			
Fisherman's Wharf	Extends north from Jefferson and Taylor Streets	Popular tourist attraction with restaurants, shops, and street performers. Provides access to tours and cruises. Offers tours of the USS Pampanito (World War II-era submarine) and access to the Musee Mecanique exhibit. Hosts many San Francisco events including firework displays for Fourth of July and Fleet Week.	Port of San Francisco
Telegraph Field	On the parking lot between Piers 27-29 off the Embarcadero at the intersection with Lombard Street	Soccer field available on a reservation-only basis; parking lot.	Port of San Francisco
Pier 7 Public Access Pier	The Embarcadero and the foot of Broadway.	900-foot long public access pier that provides seating and passive recreation, public fishing, and expansive scenic views of the Bay.	Port of San Francisco
Herb Caen Way	Approximately 3.2-mile-long promenade along The Embarcadero that runs between South Beach Pier and Pier 39	Paved pathway used by pedestrians, bicyclists, joggers, and rollerbladers.	Port of San Francisco
Levi's Plaza Park	Generally bordered by Sansome Street to the west, Filbert Street to the south, and The Embarcadero to the east	Grassy area, ponds, paved paths. Popular lunch spot for employees at Levi's Plaza.	Levi Strauss Property Management
Sydney G. Walton Square	Jackson and Davis Streets	2-acre open space area that was designed by well-known landscape architect Peter Walker. Popular lunch spot for Financial District employees.	Golden Gateway Center and Carr America
Rincon Park	Adjacent to The Embarcadero between Howard and Folsom Streets	Grassy open space area along The Embarcadero; includes the Cupid's Span sculpture.	Port of San Francisco
Ferry Building and Piers 1-5	On The Embarcadero at the terminus of Market Street	Ferry terminal and shopping center. A promenade follows the northeastern side of the Ferry Building.	Port of San Francisco
Pier 14 Public Access Pier	The Embarcadero and the foot of Mission Street.	Provides public viewing and passive recreation amenities.	Port of San Francisco
Harry Bridges Plaza	Median divider between The Embarcadero; extends from Clay Street on the north to the southern end of the Ferry Building	This space is commonly used by skateboarders and bicyclists.	Port of San Francisco
South Beach Park	Just north of AT&T Ballpark	Playground for toddlers and open grassy area.	Port of San Francisco
South Beach Harbor	Between Pier 40 and AT&T Ballpark	Consists of 700 slips with concrete docks, a 640-foot recreational and commercial guest dock, and the Pier 40 Maritime Center. Commercial services offered include kayak rentals, sailing lessons, and boat rentals. South Beach Yacht Club is located at Pier 40 and includes a clubhouse, store, and restaurant.	Port of San Francisco

TABLE 5.11-1 (Continued) [REVISED]
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
RECREATIONAL USES IN THE VICINITY OF PORT OF SAN FRANCISCO PIERS, WATER AREAS, AND SEAWALL LOTS (cont.)			
AT&T Ballpark	Bordered by Third Street to the southwest, King Street to the west, Second Street to the northeast, and San Francisco Bay to the east.	Baseball stadium and home to the San Francisco Giants, major league baseball franchise.	Port of San Francisco
Giants PortWalk Promenade	Waterfront promenade along the southeastern side of AT&T Ballpark; connects to Third Street.	Multiuse path used by bicyclists, hikers, and joggers.	Port of San Francisco
China Basin Park	Bordered by Third Street to the west, Terry A. Francois Street to the south, and San Francisco Bay to the north and east. Just northwest of Pier 48.	Grass area, passive recreation elevated off the sidewalk. Contains a mini baseball field.	Port of San Francisco
Mission Creek Park	Borders the northwestern shore of Mission Creek between Fourth Street to the northeast and Berry Street to the northwest.	Benches and multiuse path used by bicyclists, walkers, and joggers; public launch for hand-held water vessels (e.g. kayaks) and sports court/active recreation area at end of Mission Creek.	San Francisco Redevelopment Agency / Port of San Francisco
Pier 52 Public Boat Ramp	Pier 52	Two lane public boat ramp for trailered boat access, and kayaks.	Port of San Francisco
Warm Water Cove Park	24th and Michigan Streets	Passive recreation with a small grassy area.	Port of San Francisco
Islais Landing	At the corner of Quint Street and Cargo Way (just west of Third Street)	Small pocket park; water recreation area for kayaks, outrigger can~~n~~oes.	Port of San Francisco
Tulare Park	Between Third and Illinois Streets along Islais Creek Channel	Small pocket park.	Port of San Francisco
RECREATION FACILITIES IN THE VICINITY OF PROPOSED SPECTATOR VENUES			
Fort Baker, Marin County			
Cavallo Point	Eastern point of Horseshoe Cove	Accessible via pedestrian and bicycle path; parking available.	Golden Gate National Recreation Area
Bay Area Discovery Museum	557 McReynolds Road, Sausalito	Educational museum for young children.	Golden Gate National Recreation Area
Travis Sailing Center	East side of Horseshoe Cove	Provides sailing lessons and boat rentals.	Golden Gate National Recreation Area
Battery Spencer	West of the Golden Gate Bridge and accessible via Conzelman Road in Sausalito	Popular viewing location of the Golden Gate Bridge and San Francisco.	Golden Gate National Recreation Area
Alcatraz Island			
Alcatraz Island	Central San Francisco Bay, offshore of Fisherman's Wharf	Major museum exhibit attraction, lighthouse, guided tours, trails.	Golden Gate National Recreation Area
Crissy Field			
Fort Point Overlook	Southeastern end of Golden Gate Bridge	Offers up-close scenic views of the Golden Gate Bridge. Access to bridge sidewalks (east side is available to pedestrians and west side is open to bicyclists). Adjacent to a gift center and café.	Golden Gate Bridge, Highway and Transportation District

TABLE 5.11-1 (Continued) [REVISED]
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
RECREATION FACILITIES IN THE VICINITY OF PROPOSED SPECTATOR VENUES (cont.)			
Crissy Field (cont.)			
Crissy Field	Generally bordered by Long Avenue to the west, Mason Street to the south, East Beach to the north, and Yacht Road to the east.	A 22-acre tidal marsh and historic air field. Contains ample parking spaces, Torpedo Wharf, Battery East, the Warming Hut Café and bookstore, Beach Hut Café (adjacent to interim Crissy Field Center), and Café Crissy (at Mason and Halleck Streets).	Golden Gate National Recreation Area
Crissy Field Center	1199 East Beach (interim location)	Interim center provides a variety of environmental education and youth leadership programs	Golden Gate National Recreation Area
Crissy Field Overlook	Off Lincoln Boulevard and near Crissy Field Avenue	Vista point above Crissy Field that offers views of City skyline, Palace of Fine Arts, Alcatraz, and Angel Island.	Golden Gate National Recreation Area
Golden Gate Promenade (Bay Trail)	Paved promenade that runs from Fort Point through Fisherman's Wharf, Jefferson Street, Aquatic Park, Fort Mason, Marina Green, and Crissy Field, and ends at the Golden Gate Bridge.	A 4.3-mile-long multiuse trail that runs the length of Crissy Field and is accessible to bicyclists and hikers.	Golden Gate National Recreation Area
Mason Street multi-use path and bike lane (Bay Trail)	Paved path and bike lane that runs along Mason Street from the Marina Gate to West Bluff Picnic Area (west end of Crissy Field)	Multiuse path used by bicyclists, hikers, and joggers.	Golden Gate National Recreation Area
Marina Green and Vicinity			
West Harbor	Between St. Francis Yacht Club (near Baker Street/Marina Boulevard intersection) and Marina Green	Consists of 325 slips, St. Francis and Golden Gate Yacht Clubs, the Harbor Office Building, restrooms, concession stand, and four parking lots.	San Francisco Recreation and Parks Department
East Harbor	Between Marina Green and Fort Mason	Consists of 343 boat slips, City Yachts sales and fuel concession, restrooms, and two parking lots	San Francisco Recreation and Parks Department
Marina Green	Situated between East and West Harbors	An approximately 7-acre open grass field encircled by wide, paved sidewalks on all sides and four parking areas to the north, south, and west. Includes a concession stand and restroom facilities, several "par course" workout stations.	San Francisco Recreation and Parks Department
Palace of Fine Arts	Lyon and Marina Streets	A 19-acre park that consists of a rotunda and colonnades set against a lagoon, grassy areas, and a paved path. Popular place for picnicking, strolling, and jogging. The exhibition hall behind the rotunda houses the Exploratorium (described below), and the Palace of Fine Arts Theatre, which hosts concerts, dance performances, films, and other events.	San Francisco Recreation and Parks Department

TABLE 5.11-1 (Continued) [REVISED]
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
RECREATION FACILITIES IN THE VICINITY OF PROPOSED SPECTATOR VENUES (cont.)			
Marina Green and Vicinity (cont.)			
Exploratorium	3601 Lyon Street	An interactive museum of science, art, and human perception.	City and County of San Francisco
George R. Moscone Recreation Center	1800 Chestnut Street	Includes an indoor gym, community rooms, two play areas, a basketball court, tennis courts, four baseball diamonds, a putting green, and a fully renovated playground.	San Francisco Recreation and Parks Department
Fort Mason	Bordered by Laguna Street to the west, Bay Street to the south, and Van Ness Avenue to the east	Includes the Golden Gate National Recreation Area headquarters, historic buildings, public open spaces, and Fort Mason Center which hosts various environmental, cultural, and arts organizations. Includes the Great Meadow Lawn with a paved trail connecting Aquatic Park to Marina Green.	Golden Gate National Recreation Area
San Francisco Maritime National Historic Park	Van Ness Avenue and Beach Street	Includes a beach, concrete stadia, grassy lawns, bocce ball courts, Municipal Pier, visitor center, exhibit, Aquatic Park Bathhouse (Maritime Museum), Hyde Street Pier, and Golden Gate Promenade.	Golden Gate National Recreation Area
South End Rowing Club and Dolphin Club	500 and 502 Jefferson Street (southeast portion of Aquatic Park)	Buildings are leased to the two clubs and include storage for rowboats and kayaks, locker rooms, restrooms, lounge areas, and a weight room. Club members swim in the waters of Aquatic Park, row in the Bay, play in handball tournaments, and participate in annual triathlons such as Escape from Alcatraz.[36a]	San Francisco Recreation and Parks Department and Port of San Francisco
Recreational Facilities Near Proposed AC34 Live Sites			
Union Square	Post and Stockton Streets	Elevated landscaped plaza within the central shopping, hotel, and theater district of San Francisco. Contains restroom facilities and parking.	San Francisco Recreation and Parks Department
Justin Herman Plaza	Bordered by Sue Bierman Park to the north, commercial businesses to the west, The Embarcadero the east, and Market Street to the southwest	Open space plaza with water feature structure.	San Francisco Recreation and Parks Department
Sue Bierman Park	Washington and Drumm Streets	4.4-acre grassy open space area that borders Justin Herman Plaza to the north.	San Francisco Recreation and Parks Department
San Francisco Civic Center	Bounded by Market Street on the south, Franklin Street on the west, Turk Street on the north, and Leavenworth and Seventh Streets to the east	Two play areas at the center of Civic Center. Near City Hall, the San Francisco Main Library, and the Asian Art Museum.	San Francisco Recreation and Parks Department

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[36a] Dolphin Club website: http://www.dolphinclub.org/about.html, accessed September 26, 2011.

TABLE 5.11-1 (Continued) [REVISED]
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
		SECONDARY VIEWING AREAS	
Marin Headlands			
Conzelman Road	In the southern part of Sausalito; extends west from the northern end of the Golden Gate Bridge	This road provides scenic views of the San Francisco Bay and includes several roadside pullouts. The road is commonly used by cyclists and connects the Golden Gate Bridge with the Marin Headlands.	City of Sausalito
Kirby Cove Campground	Approximately 3,000 feet west of the Golden Gate Bridge	Campground with four sites; open April through October.	Golden Gate National Recreation Area
Bicentennial Campground	Approximately 2,000 feet west of Kirby Cove Campground	Campground with three sites; open year-round	Golden Gate National Recreation Area
Point Bonita Lighthouse	Point Bonita (accessible via Bunker Road and Field Road)	Lighthouse accessible via 0.5-mile trail.	Golden Gate National Recreation Area
Bird Island Overlook	Western terminus of Fort Barry Road	Scenic overlook of Bird Island and the Pacific Ocean; parking lot.	Golden Gate National Recreation Area
Rodeo Beach	Near western end of Conzelman and Field Roads	Beach, picnic tables, restroom facilities, and parking facilities. Private events and functions (weddings, receptions, organized events, etc.) require special use permits.	Golden Gate National Recreation Area
Angel Island State Park			
Angel Island	Within Central San Francisco Bay, east of the town of Tiburon and north of Alcatraz Island	Consists of numerous group picnic areas, campsites, restroom facilities, snack bar, visitor center, and café. Trails that encircle the island include the Sunset Trail and Ida Trail. Roads that are accessible to bicyclists and hikers include the Perimeter Road, Point Stuart Loop, and the Fire Road. Other destinations on the island include Battery Ledyard, Battery Drew, and the Nike Missile Site.	California Department of Parks and Recreation
City of Sausalito			
Tiffany Park	Easterly side of Bridgeway at east end of North Street	Small sand beach.	City of Sausalito
Yee Tock Chee Park	Bay side of Bridgeway at Princess Street	Passive park with landscaping, lights, benches, and access to water. Scenic views of San Francisco available.	City of Sausalito
Gabrielson Park	Outboard of Parking Lot #1 which fronts on Anchor Street	Lawn area, benches, sculpture and view across Richardson Bay.	City of Sausalito
~~Sausalito Town Square~~ Plaza Vina del Mar	Intersection of Bridgeway, Anchor, and El Portal Streets	~~Also known as Vina del Mar Plaza, t~~This plaza ~~serves as the town square of Sausalito~~is a Point of Historical Interest. Consists of a greenbelt area with fountain and landscaping.	City of Sausalito
~~Richardson Bay Marina~~	~~100 Gate Six Road~~	~~Consists of 220 slips.~~	~~City of Sausalito~~

TABLE 5.11-1 (Continued) [REVISED]
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
SECONDARY VIEWING AREAS (cont.)			
City of Sausalito (cont.)			
Clipper Yacht Harbor	310 Harbor Drive	Private harbor that consists of 700 slips and a fuel dock and is home to a large portion of Sausalito's sportfishing fleet. Tenants accepted on an application basis.[37]	City of Sausalito
Marina Plaza Harbor	2320 Marinship Way between downtown Sausalito and Harbor Road	Private harbor that consists of 103 slips. Tenants accepted on an application basis.[38]	City of Sausalito
Schoonmaker Point Marina	85 Liberty Ship Way, #205	Full-service private marina with 160 slips. Also includes a café and an adjacent sandy beach that can be used to land or launch kayaks and dinghies. Temporary and permanent berthing available as space permits.[39]	City of Sausalito
~~Cass' Marina~~	~~1702 Bridgeway at Napa Street~~	~~Private marina that offers sailboat rentals, sailing classes, and adventure charters.~~[40]	~~City of Sausalito~~
Galilee Harbor	300 Napa Street	Maintained by the Galilee Harbor Community Association, a member-run cooperative community composed of artists and marine workers, this harbor is home to many boat builders and their respective families.[41]	City of Sausalito
Pelican Yacht Harbor	Just north of and adjacent to Sausalito Yacht Harbor	Private marina that consists of 90 slips with many classic wooden boats. Does not include guest slips.	City of Sausalito
Arques Shipyard and Marina	2350 Marinship Way Sausalito (south of Clipper Yacht Harbor)	Small private marina that is part of the Arques Shipyard.	City of Sausalito
Sausalito Yacht Harbor	501 Humboldt Avenue	Private marina that provides approximately 600 berths.	City of Sausalito
Sausalito Yacht Club	Humboldt Avenue and Anchor Street, adjacent to Gabrielson Park	Private clubhouse, bar, and restaurant.	City of Sausalito
Sausalito Marinways	225 Locust Street	Provides approximately 54 berths.	City of Sausalito

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[37] Boating San Francisco website: http://www.boatingsf.com/catpage.php?category=marina&region=&showmap=1, accessed April 2011.

[38] Ibid.

[39] Ibid.

[40] ~~Ibid.~~

[41] Galilee Harbor Community Association website: http://www.galileeharbor.org/index.html, accessed April 2011.

TABLE 5.11-1 (Continued) [REVISED]
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
SECONDARY VIEWING AREAS (cont.)			
Town of Tiburon and City of Belvedere			
Shoreline Park	Along the Tiburon shoreline, extending from the corner of Tiburon Boulevard and Paradise Drive to the corner of Paradise Drive and Mar West Street	Passive park consisting of a strip of grass and paved walkway along the Tiburon shoreline.	Town of Tiburon
Waterfront Area along Beach Road	Beach Road along the southeastern side of Belvedere.	Paved walkway along the Belvedere Cove waterfront.	City of Belvedere
Other Areas of Marin County			
Richardson Bay Marina	100 Gate Six Road	Consists of 220 slips.	Unincorporated Marin County
Paradise Beach County Park	3450 Paradise Drive, Tiburon	Consists of 11 picnic areas available on a reservation basis, lawn areas, restrooms, and parking.[41a]	Marin County Parks and Open Space
McNears Beach County Park	201 Cantera Way, San Rafael	Consists of beach, tennis courts, pool, and six picnic areas available on a reservation basis.[41b]	Marin County Parks and Open Space
Old St. Hilary's Open Space Preserve and Tiburon Uplands Preserve	Approximately 0.25 mile south of Paradise Beach County Park	122-acre preserve with hilltop views of San Francisco Bay.[41c]	Marin County Parks and Open Space
Aramburu Island Preserve	Northwestern portion of Richardson Bay near Mill Valley	17-acre island that is currently undergoing habitat enhancement work.[41d]	Marin County Parks and Open Space
Ring Mountain Open Space Preserve	Generally bounded by San Pablo Bay to the north, the town of Tiburon to the east, and the town of Mill Valley to the south and west.	367-acre preserve that consists of several trails that offer views of San Francisco Bay and surrounding areas.[41e]	Marin County Parks and Open Space
Treasure Island and Yerba Buena Island			
Fogwatch Picnic Area	Western side of Treasure Island	Picnic area located on the western shore of Treasure Island offering unobstructed views of the San Francisco skyline. Available on a reservation-only basis.	U.S. Navy

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[41a] Marin County Parks and Open Space website: http://www.maringov.org/Home/Depts/PK/Divisions/Open%20Space/Main/PreserveMaps.aspx, accessed September 30, 2011.

[41b] Ibid.

[41c] Ibid.

[41d] Ibid.

[41e] Ibid.

TABLE 5.11-1 (Continued) [REVISED]
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
SECONDARY VIEWING AREAS (cont.)			
Treasure Island and Yerba Buena Island (cont.)			
Treasure Island Great Lawn	Western side of Treasure Island	An approximately 126,500-square-foot expansive grass area located on the western shore of the island. Contains 400 parking spaces. Available on a reservation-only basis.	U.S. Navy
Treasure Isle Marina	Clipper Cove Way (between Treasure Island and Yerba Buena Island)	Accommodates about 100 slips.	U.S. Navy
Yerba Buena Island	Throughout Yerba Buena Island	Unnamed beach areas and picnic grounds at the foot of Clipper Cove, and a multipurpose field located near the peak of Yerba Buena Island.	U.S. Navy
Golden Gate Bridge			
Golden Gate Bridge	Highway 1/101 bridge that connects San Francisco to Marin County	A 1.7-mile-long bridge containing sidewalks along both sides that are accessible to pedestrians and bicyclists during daylight hours. The southeast side of the Golden Gate Bridge includes a visitor center, parking lot, renovated garden, and the Fort Point Overlook.	Golden Gate Bridge, Highway and Transportation District
Presidio of San Francisco and Vicinity			
Fort Point National Historic Site	End of Marine Drive at the Presidio (east of the Warming Hut)	Special programs and exhibits related to the fort's history.	Golden Gate National Recreation Area
Main Post	Lincoln Boulevard and Montgomery Street	Includes a main parade ground that is widely used for special events such as the San Francisco Marathon, Escape from Alcatraz, and the KNBR Bridge to Bridge race. Other attractions in the vicinity of the Main Post include the Presidio Bowling Center and the Walt Disney Family Museum.	Presidio Trust
San Francisco National Cemetery	Northern center of the Presidio (just south of Lincoln Boulevard and east of Veterans Boulevard)	30-acre cemetery for the nation's military veterans and their families. This cemetery overlooks the San Francisco Bay and includes a vista point at the southern end of the cemetery accessible by the Bay Area Ridge Trail.	Presidio Trust
Baker Beach	Western coast of the Presidio. Generally west of Lincoln Boulevard, just north of the water treatment plant (accessible via Gibson Road)	Beach with picnic area, barbecue pits, restroom facilities, parking lots, and nature viewing area. Adjacent to Batter Chamberlin and Battery Crosby.	Golden Gate National Recreation Area
China Beach	West of El Camino Del Mar and between Baker Beach and Land's End	Beach with picnic area, barbecue pits, and parking lot.	Golden Gate National Recreation Area

TABLE 5.11-1 (Continued) [REVISED]
RECREATIONAL RESOURCES IN THE PROJECT VICINITY

Resource	Location	Activities/Facilities	Land Owner, Regulator, or Land Manager
SECONDARY VIEWING AREAS (cont.)			
Presidio of San Francisco and Vicinity (cont.)			
Lands End	Generally bounded by El Camino Del Mar, Lincoln Park to the east, Point Lobos Avenue to the south, and the Pacific Ocean to the west	Includes the Eagles Point Overlook, Cliff House, Sutro Bath ruins, USS San Francisco Memorial, picnic areas, and several coastline hiking trails offering views of the Golden Gate Bridge, Marin Headlands, Point Reyes, and Pacific Ocean.	Golden Gate National Recreation Area
Northern San Francisco Hillside Locations			
Coit Tower and Pioneer Park	1 Telegraph Hill Boulevard	Coit Tower consists of an observation deck accessible by elevator that offers views of the city and Bay. The tower is surrounded by Pioneer Park and trails winding around the tower and down the hill. Has a parking lot.	San Francisco Recreation and Parks Department
Russian Hill Park and Open Space	Hyde and Bay Streets	An approximately 1-acre open space park that is handicap accessible.	San Francisco Recreation and Parks Department
Lafayette Park	Gough and Washington Streets	An approximately 11.5-acre open space park with restroom facilities.	San Francisco Recreation and Parks Department

SOURCE: ESA 2011.

As explained in Response RE-6, the EIR text on page 5.11-27, first paragraph, is revised as follows:

Treasure Island and Yerba Buena Island

Viewing areas on Treasure Island include areas along the western shoreline. Spectators could potentially use the Great Lawn, Fogwatch Picnic Area, and the Treasure Isle Marina to watch the AC34 races. On Yerba Buena Island, a small beach area and picnic ground at the foot of Clipper Cove may serve as a potential gathering area for a limited group of spectators wishing to use the western slope of the island to view the AC34 race events~~viewing location for a limited group of people~~.

As discussed in Response RE-6, the EIR text on page 5.11-29 is revised as follows:

Presidio Trust Management Plan

~~The 2002 *Presidio Trust Management Plan* contains planning principles that guide the Presidio Trust to fulfill its goals of preserving and enhancing the park's resources within the Presidio of San Francisco Main Post, which is managed by the Presidio Trust. This plan also describes land use preferences for future rehabilitation and leasing of the Presidio's~~

~~amenities. The following guidelines related to preservation of open space, vegetation, and views are relevant to the proposed project:~~

- ~~"*Spatial Organization and Land Patterns Guideline*: Maintain the Main Post as the 'heart of the Presidio' through rehabilitation, reuse, and interpretation of historic buildings, open spaces, and archeological resources. Consider selective placement of compatibly-scaled infill construction and/or landscape treatments to strengthen the articulation of the historic open spaces and provide a rich visitor experience.~~
- ~~*Guidelines for Open Space/Vegetation/Views*: Improve pedestrian and visual connections between the Main Post and Crissy Field. Reinforce the historic connection along Halleck Street. Incorporate an open space connection to Crissy Field as part of the planning for reconstruction of Doyle Drive.~~
- ~~*Guidelines for Open Space/Vegetation/Views*: Preserve Mason Street as an open streetscape with expansive views. Retain the 'open' setting and feel of Crissy Field; limit the introduction of vast, new landscape plantings."~~[45]

The 2002 Presidio Trust Management Plan describes the Presidio's cultural, natural, scenic, and recreational resources, and provides planning principles that will ensure that the Presidio is preserved, protected, and enhanced for the public's benefit. The planning principles are interrelated, and taken together guide actions and decision-making by the Presidio Trust. The following principles pertaining to recreational use and special events are relevant to the proposed project:

- "***Recreational Use.*** The Trust is committed to providing diverse opportunities for both passive and active recreation, and to maintaining an atmosphere that is open, inviting, and accessible to visitors. In providing these opportunities, the Trust will consider what activities are best suited to the Presidio, and will balance recreational opportunities with resource protection. To achieve this balance, the Trust will consider the type and level of visitor use that can be accommodated while sustaining the desired resources and visitor experience conditions…"
- "***Special Events and Festivals.*** The Presidio's open space and recreational amenities will be managed to provide settings for public programs, activities, and events. The Trust is committed to making the park increasingly accessible to the public and will facilitate public use of the park for festivals and special events, such as marathons or bike rides. The Trust will identify ways to monitor these events and to anticipate and address potential impacts on park resources, neighbors, and the visitor experience."[45]

The Presidio Trust Management Plan Final EIS includes the following mitigation measures to manage visitor uses and special events, which would also apply to the proposed project:

- "CO-6 Management Controls. The Trust would impose management controls on visitor uses, if necessary, to ensure that the Presidio's resources are protected. If an ongoing or proposed activity would cause unacceptable impacts to park resources, adjustments would be made to the way the activity is conducted, including placing limitations on the activity, so as to eliminate the unacceptable impacts. Any restrictions would be based on professional judgment, law and policy, the best available scientific study or research, appropriate environmental review, and other available data. As visitor use changes over time, the Trust would decide if management actions are needed to keep use at acceptable and sustainable levels."

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[45] ~~Presidio Trust, 2002, Presidio Trust Management Plan, available online at http://www.presidio.gov/trust/documents/environmentalplans/ptmp.htm, accessed May 2011.~~

[45] Presidio Trust, 2002, Presidio Trust Management Plan, available online at http://www.presidio.gov/trust/documents/environmentalplans/ptmp.htm, accessed May 2011.

- "CO-7 Special Events. The Trust would require appropriate permit conditions for special events to ensure that park resources are protected."
- "CO-8 Monitoring of Visitor Levels. The Trust would monitor visitation levels to ensure that park uses would not unacceptably impact Presidio resources, including visitor experience. Visitor carrying capacities for managing visitor use would be identified if necessary."[45a]

As explained in Response RE-7, Mitigation Measure M-RE-1 on EIR page 5.11-43 is revised as follows:

Mitigation Measure M-RE-1: Protection of Recreational Resources

As described in the Project Description, the *Parks Event Operations Plan* (applicable to NPS, Presidio Trust, California Department of Parks and Recreation, and SFRPD) will be prepared and implemented in support of the proposed project. Also as described in the Project Description, the City and Event Authority are coordinating with local agencies and jurisdictions (including BCDC, Marin County, Sausalito, Tiburon, and Belvedere). As the plan and agency coordination are still under development, this mitigation measure requires that the plan and ongoing agency coordination to incorporate specific elements to protect recreational resources through protection and restoration requirements. The *Parks Event Operations Plan* and the agency coordination shall each include, for their respective jurisdictions, the following measures to protect and restore recreational resources:

- ***Identification of Recreational Resource Areas of Special Concern.*** Agency coordination shall include identification of recreational resource areas of special concern to land management agencies (e.g., Crissy Field picnic area near the Warming Hut) that could provide attractive spectator viewing opportunities, determination of the existing condition of resources, ~~and identify~~ identification of requirements for additional service levels at recreational facility restrooms and trash/recycling needs, and identification of any necessary agreements, such as a memorandum of understanding or memorandum of agreement, to document commitments regarding protection and restoration of recreation resource areas of special concern.
- ***Crowd Control*:** The project sponsor shall ensure that crowd control volunteers and/or enforcement personnel are posted at or near the recreation resources identified to be of special concern in order to manage crowd levels at those locations. The exact number, location, and timing of the crowd control volunteers shall be determined in consultation with the appropriate land authority where the indirect impacts are anticipated.

[45a] Presidio Trust, 2002, Presidio Trust Management Plan Final EIS, available online at http://www.presidio.gov/trust/documents/environmentalplans/final_eis.htm, accessed September 2011.

- *Post-Event Repair*: Following each of the 2012 and 2013 AC34 events, the project sponsor shall ensure that recreational resource areas of special concern are returned to their previously identified pre-project condition to the extent damaged by event activities, which could include trash collection, facility repairs, restroom maintenance, pavement washing, trail repair, revegetation, and resodding.

City staff has revised EIR page 5.11-45, Impact C-RE, as follows to clarify the cumulative impact analysis:

> **Impact C-RE: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative recreation impacts. (Both Projects: Less than Significant)**

Section 5.12 Utilities

As discussed in Response UT-5, the EIR text on page 5.12-4, middle of the last paragraph, is revised as follows:

> Most of the Port properties—including all of the America's Cup and cruise terminal project sites, except Seawall Lot 330—are served by one MS4. Seawall Lot 330 is served by the City's combined sewer systems.

As discussed in Response UT-1, the EIR text in Chapter 5, Section 5.12, Utilities and Service Systems, on page 5.12-8, last paragraph, is revised as follows:

> The Authority sent 179,919 tons of solid waste to landfills in 2009, of which 130,350 tons went to the Redwood Sanitary Landfill at 8950 Redwood Road in Novato. About 50 percent of the material brought to the center is reused. ~~The facility is permitted to accept 1,290 tons per day of solid waste. As of 2000, the total estimated permitted capacity was 19,100,000 cubic yards, of which 67.5 percent (12,900,000 cubic yards) was remaining. The County recently approved an expansion of the landfill, along with new requirements to expand recycling, composting, and energy recovery. This would allow the landfill to continue to accept waste through about 2024.~~
>
> Bay Cities Refuse Service collects residential and commercial garbage, recycling, and yard waste from the City of Sausalito. Mill Valley Refuse Service collects residential and commercial garbage, recycling, and yard waste from Tiburon and Belvedere, as well as Mill Valley, Almonte, Alto, Corte Madera, Homestead, Strawberry, and surrounding unincorporated areas. Collected refuse is sorted at the Golden Bear Transfer Station in Richmond, and the remaining solid waste is sent to landfills in Contra Costa County. ~~sent to the Redwood Sanitary Landfill and Recycling Center~~.

As discussed in Response UT-1, the EIR text on page 5.12-9, last paragraph, is revised as follows:

> Irrigation and potable water are supplied to Angel Island by state-owned and -maintained wells on the island. Solid waste is collected in a garbage packer on the island and

> transported via boat to the Golden Bear Transfer Station in Richmond ~~Redwood Landfill in Marin~~, described above.

As discussed in Response UT-3, page 5.12-19, third paragraph, is revised as follows:

> At Alcatraz, the project sponsor proposes to host private events within existing facilities that already serve events on the island. Private events are currently held at Alcatraz through a formal permitting and coordination process with the NPS. This permitting process and continued controlled access to the island, via ferry, would ensure that existing facilities have adequate utilities ~~are~~ to ~~provided for~~ support these private functions.

As discussed in Response UT-1, the EIR text on page 5.12-24, fifth full paragraph, is revised as follows:

> As stated in the Setting, above, the collected refuse from Marin County locations is sorted at the Golden Bear Transfer Station in Richmond, and the remaining solid waste is sent to landfills in Contra Costa County. ~~the Marin County Hazardous and Solid Waste Management Authority currently diverts more than 70 percent of generated solid waste from the Redwood Sanitary Landfill, and the landfill's expansion was recently approved to allow for continued disposal through 2024~~. The increased visitors to these Marin County locations would incrementally increase solid waste generation, but not to the extent that would exceed the capacity of local landfills~~the Redwood Sanitary Landfill~~.

As discussed in Response UT-5, the EIR text on page 5.12-31, beginning of the first paragraph, is revised as follows:

> Most of the sites—except Seawall Lot 330—are within the Port jurisdiction MS4, which allows stormwater to drain directly into the Bay and bypass the combined sewer system. Seawall Lot 330 is served by the City's combined sewer systems.

City staff has revised EIR page 5.12-31, Impact C-UT, as follows to clarify the cumulative impact analysis:

> **Impact C-UT: The proposed projects, combined with past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts on utilities or service systems. (Both Projects: Less than Significant)**

Section 5.13 Public Services

As discussed in Response PS-1, the EIR text in Chapter 5, Section 5.13, Public Services, page 5.13-9, Table 5.13-2, is revised as follows:

TABLE 5.13-2 [REVISED]
LAW ENFORCEMENT SERVICES IN THE PROJECT AREA

Project Site	Agency	Closest Station to the Project Site
Pier 80	SFPD	Bayview District
Piers 30-32	SFPD	Southern District
Brannan Street Wharf Open Water Basin	USCG	Yerba Buena Island
Seawall Lot 330	SFPD	Southern District
Piers 26 and 28	SFPD	Southern District
Rincon Point Open Water Basin	USCG	Southern District
Piers 19 and 19½	SFPD	Central District
Pier 23	SFPD	Central District
Piers 27-29	SFPD	Central District
Aquatic Park	USPP	Fort Mason Station
	NPS	Presidio Station
	SFPD	Central District
Fort Mason	USPP	Fort Mason Station
	NPS	Presidio Station
	SFPD	Northern District
Marina Green	SFPD	Northern District
Crissy Field	USPP	Presidio Station
	NPS	Presidio Station
Cavallo Point	NPS	Fort Baker Station
	MCS	Southern Sub-Station
Justin Herman Plaza	SFPD	Central District
Union Square	SFPD	Central District
Civic Center	SFPD	Northern District
Alcatraz	NPS	Alcatraz
Presidio and south side of Golden Gate Bridge	USPP	Presidio Station
	NPS	Presidio Station
Fisherman's Wharf	SFPD	Central District
NE Embarcadero (Pier 42 to Fisherman's Wharf)	SFPD	Southern and Central Districts
Marin Headlands	NPS	Fort Baker Station
	MCS	Southern Sub-Station
Sausalito	SPD	Sausalito Station
	MCS	Southern Sub-Station
Belvedere	BPD	Belvedere Station
	MCS	Southern Sub-Station
Tiburon	TBP	Tiburon Station
	MCS	Southern Sub-Station
Treasure Island	SFPD	Southern District
Angel Island	CSPR	Angel Island
San Francisco Bay	USCG	Yerba Buena Island
	MCS	Southern Sub-Station

NOTES:

SFPD = San Francisco Police Department
USCG = United States Coast Guard
USPP = United States Park Police
NPS = National Park Service (law enforcement rangers)
CHP = California Highway Patrol
SPD = Sausalito Police Department
BPD = Belvedere Police Department
TPD = Tiburon Police Department
CSPR = California State Park Rangers
MCS = Marin County Sheriff

SOURCE: DOEM, 2011

As discussed in Response PS-2, the following text is inserted into the EIR on page 5.13-14, following the first full paragraph and before Section 5.13.3:

Marin Countywide Plan

The *Marin Countywide Plan* guides the conservation and development of Marin County. The Socioeconomic Element, Natural Systems and Agriculture Element, and Built Environment Element contain goals, policies, and programs relevant to the AC34 project, although most of the policies of these elements are not applicable to either (1) increased demand on public services related to special events, or (2) CEQA analysis.

The Socioeconomic Element of the *Marin Countywide Plan* focuses on the people of Marin County and seeks to reinforce the complex connections among individual well-being, economic prosperity, community involvement, cultural richness, and the environment. The following implementing program of the *Marin Countywide Plan* Socioeconomic Element is relevant to the AC34 project:

> *PS-3.b Maintain Adequate Response Resources.* Identify the need for and maintain adequate staffing levels, equipment, and resources, and undertake disaster preparedness training as necessary to provide essential emergency public services.

The following policies and implementing program of the *Marin Countywide Plan* Natural Systems and Agriculture Element are relevant to the proposed project:

> *EH-2.l Reliability of Lifelines and Access (Evacuation) Routes.* In cooperation with utility system providers, emergency management agencies, and others, assist in the development of strategies to reduce adverse effects of geologic hazards, especially fault surface rupture and landslides to critical public lifelines, and access (i.e., evacuation) routes in an emergency.
>
> *EH-4.4 Ensure Adequate Emergency Response.* Ensure that there is an adequate number of trained and certified emergency medical technicians to address the increase in medical demand.
>
> *EH-4.p Provide Paramedics as Needed.* Assess the adequacy and number of firefighters trained as emergency medical technicians, and train more paramedics or firefighters, as needed.

The following implementing program of the *Marin Countywide Plan* Built Environment Element is relevant to the proposed project:

> *PFS-1.d Reduce Demand on Public Facilities.* Assess and revise community development and facilities rules to incorporate least-cost (including environmental, economic, and societal costs) and integrated resources planning for water, wastewater, and storm water infrastructure.

As discussed in Response PS-1, the last paragraph on page 5.13-17 is revised as follows:

> The AC34 2012 and AC34 2013 events would attract large numbers of spectators aboard private and commercial vessels on San Francisco Bay, with an estimated average weekend peak during the 2013 races of 18,000 spectators on boats (see Chapter 3). In addition, AC34 would involve numerous AC72 racing yachts and team support vessels, and a barge helipad would be stationed in the Bay to support media operations. The temporary increase in vessel traffic and uses on the Bay would result in increased demand for emergency medical services for vessels on the Bay. Emergency medical services for vessels in Central San Francisco Bay are provided by the USCG on Yerba Buena Island, SFFD operating from Station 35 at Pier 22½ (see Figure 5.13-1), SFPD Marine Unit, Marin County Sheriff's Office, Sausalito Police Department, Southern Marin Fire Protection District, and Tiburon Fire Protection District. The anticipated increase in demand for emergency medical service for boaters on the Bay during the AC34 2012 and AC34 2013 events would be similar to levels needed during peak days under other major events (i.e., Fleet Week). The increase in demand would be met using existing facilities, and no new or physically altered facilities would be constructed. Therefore, maintaining acceptable emergency medical service for spectator boats during the AC34 2012 and AC34 2013 events would have *no impact*.

As discussed in Response PS-1, the first full paragraph on page 5.13-19 is revised as follows:

> ***Fire Protection Services for Visitors on Boats.*** The AC34 2012 and AC34 2013 events would attract large numbers of spectators aboard private and commercial vessels on San Francisco Bay, with an estimated average weekend peak of 18,000 spectators on boats during the 2013 races (see Chapter 3). In addition, AC34 would involve numerous AC72 racing yachts and team support vessels, and a barge helipad would be stationed in the Bay to support media operations. The temporary increase in vessel traffic and uses on the Bay would result in increased demand for emergency response services for vessel fires and boating accidents. Emergency response services for vessels in Central San Francisco Bay are provided by the USCG on Yerba Buena Island and the SFFD operating from Station 35 at Pier 22½, (see Figure 5.13-1), Marin County Sheriff's Office, Sausalito Police Department, Southern Marin Fire Protection District, and Tiburon Fire Protection District. The anticipated increase in demand for fire protection services for boaters on the Bay during the AC34 2012 and AC34 2013 events would be similar to levels needed during peak days under existing conditions. The increase in demand would be met using existing facilities, and no new or physically altered facilities would be constructed. Therefore, maintaining acceptable fire protection services for spectator boats during the AC34 2012 and AC34 2013 events would have *no impact*.

City staff has revised EIR page 5.13-28, Impact C-PS, as follows to clarify the cumulative impact analysis:

> **Impact C-PS: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts on public services. (Both Projects: No Impact)**

Section 5.14.1 Biological Resources – Upland

As discussed in Response BIU-1, the EIR text on page 5.14-2, second paragraph, is revised as follows:

> The San Francisco Bay-Delta is the second largest estuary in the United States and supports numerous aquatic habitats and biological communities. The estuary's populations of fish and wildlife have changed markedly in the past 150 years, with losses due to over-harvest, habitat loss and degradation, introduced species, pollutants, and the modification of freshwater flows. It encompasses 479 square miles, including shallow mudflats. San Francisco Bay is divided into four main basins: South Bay, Central Bay, San Pablo or North Bay, and Suisun Bay. This assessment focuses on the Central Bay, which is located between the San Francisco-Oakland Bay Bridge (Bay Bridge) and the Richmond-San Rafael Bridge and connects to the Pacific Ocean through the Golden Gate. The regional setting for purposes of this evaluation includes the shallow water habitats around San Francisco Bay – the "baylands."[2] The Central Bay subregion of the baylands includes the main body of San Francisco Bay. Its major streams, all relatively small, include Codornices, Corte Madera, Temescal, and Wildcat Creeks. Lands within this subregion are in Alameda, Contra Costa, Marin, San Francisco, and San Mateo Counties. Together, there are about 33,000 acres of baylands in the Central Bay subregion.

As discussed in Response BIU-2, and the EIR text on page 5.14-3, last paragraph, is revised as follows:

> **Alcatraz Island**
>
> For the most part, vegetation on Alcatraz Island, formerly a relatively barren rock, comprises grasses that have colonized the island as windblown seed and plants that have naturalized from the gardens planted by prison guards. Two species of cormorants (*Phalacrocorax sp.*), the Brandt's cormorant and the pelagic cormorant, breed on Alcatraz. Although neither species is considered special-status, Alcatraz is the only breeding colony site for these two species in the San Francisco Bay.[5] Other nesters include black-crowned night heron (*Nycticorax nycticorax*) and snowy egret (*Egretta thula*), and the pigeon guillemot (*Cepphus columba*). For the latter three species, nesting colonies are listed as special-status on the CDFG "Special Animals" list.

As discussed in Response BIU-2, the spelling of "sand spurrey" is corrected on page 5.14-4, second full paragraph, as follows:

> ... sand -spurrey (*Spergularia* sp.), ... *(hyphen deleted)*

As explained in two separate locations in Response BIU-2, the EIR text on page 5.14-4, second paragraph, is revised as follows:

> Crissy Field is the former Presidio Army Base Airfield, with native turf grasses and ornamental landscaping. Twenty-two acres were converted into a tidal marsh (Crissy Marsh), which support salt marsh species such as Pacific cordgrass (*Spartina foliosa*),

pickleweed (*Salicornia* sp.), salt grass (*Distichlis spicata*), alkali heath (*Frankenia salina*), sand-spurrey (*Spergularia* sp.), fleshy jaumea (*Jaumea carnosa*), and marsh rosemary (*Limonium californicum*). Northern Foredune, Central Dune Scrub and wetland communities are also present. Both the National Park Service (NPS) and the Presidio Trust consider natural communities in the Crissy Marsh important~~. and the Crissy Field dune community is identified as a Special Ecological Area (SEA) by the NPS. San Francisco lessingia (*Lessingia germanorum*), which is both federally and state-listed, occurs at Crissy Marsh~~

As discussed in Response BIU-2, the list on EIR page 5.14-7 is expanded as requested by the commenter.

- sanderling *Calidris alba*
- willet *Catoptrophorus semipalmatus*
- *pigeon guillemot *Cepphus columba*
- common murre *Uria aalge*
- *black oystercatcher *Haematopus bachmani*
- *snowy egret *Egretta thula*
- *western gull *Larus occidentalis*
- marbled godwit *Limosa fedoa*
- *black-crowned night-heron *Nycticorax nycticorax*
- *pelagic cormorant *Phalacrocorax pelagicus*
- *brandt's cormorant *Phalacrocorax penicillatus*
- *bank swallow *Riparia riparia*
- *Caspian tern *Sterna caspia*
- Elegant tern *Sterna elegans*
- barred owl *Strix varia*
- peregrine falcon *Falco peregrinus*
- coyote *Canis latrans*
- *harbor seal *Phoca vitulina*
- mountain lion *Puma concolor*
- pink sand verbena *Abronia umbellata ssp. breviflora*
- rose rockcress *Arabis blepharophylla*
- Marin manzanita *Arctostaphylos virgata*
- Nuttall's milkvetch *Astragalus nuttallii* var. *virgatus*
- California saltbush *Atriplex californica*
- Oakland mariposa lily *Calochortus umbellatus*
- coast Indian paintbrush *Castilleja affinis ssp. affinis*
- Glory bush *Cean*othus gloriosus var. exaltatus
- Point Reyes ceanothus *Ceanothus gloriosus var. gloriosus*
- Mason's ceanothus *Ceanothus masonii*
- *San Francisco spineflower *Chorizanthe cuspidata* var. *cuspidata*
- *Franciscan thistle *Cirsium andrewsii*
- Pt. Reyes bird's-beak *Cordylanthus maritimus* ssp. *palustris*
- California croton *Croton californicus*
- California bottlebrush grass *Elymus californicus*
- San Francisco wallflower *Erysimum franciscanum*
- *bluehead gilia *Gilia capitata* ssp. *chamissonis*
- hairy gumweed *Grindelia hirsutula*
- wedgeleaf horkelia *Horkelia cuneata ssp. sericea*
- Arcuate bush mallow *Malacothamnus arcuatus*
- elegant piperia *Piperia elegans*
- artist's popcornflower *Plagiobothrys chorisianus var. chorisianus*
- coast redwood *Sequoia sempervirens*
- *San Francisco campion *Silene verecunda* ssp. *verecunda*
- California cordgrass *Spartina foliosa*
- Santa Cruz microseris *Stebbinsoseris decipiens*
- camphor tansy *Tanacetum camphoratum*
- *San Francisco owl's-clover *Triphysaria floribunda*
- *Franciscan manzanita *Arctostaphylos franciscana*

As discussed in Response BIU-2, the EIR text in Table 5.14-1 on pages 5.14-8 through 5.14-11 is revised as shown on the following page.

TABLE 5.14-1 [REVISED]
SPECIAL-STATUS UPLAND SPECIES CONSIDERED IN EVALUATION OF THE PROJECT AREA

Common Name ***Scientific Name***	**Listing Status USFWS/ CDFG/CNPS**[a]	**General Habitat**	**Potential for Species Occurrence Within Project Area**
STATE OR FEDERALLY LISTED SPECIES			
San Bruno elfin butterfly *Callophrys mossii bayensis*	FE/--	Inhabits rocky outcrops and cliffs on north-facing, often shady slopes in coastal scrub and relatively undisturbed grasslands. Larval host plant is *Sedum spathulifolium.*	Low. Species occurrences at Milagra Ridge but no suitable habitat in project area.
Bay checkerspot butterfly *Euphydras editha bayensis*	FT/--	Restricted to native grasslands on outcrops of serpentine, with dwarf plantain and owl's clover as host plants.	Low. Suitable native serpentine grasslands do not occur on project area.
Mission blue butterfly *Icaricia icariodes missionensis*	FE/--	Coastal scrub and grassland habitat. Requires *Lupinus albifrons, L. variicolor, or L. formosus* as larval host plant.	Present. Found in Tennessee Valley, Marin Headlands including Fort Baker.
Callippe silverspot butterfly *Speyeria callippe callippe*	FE/--	Occurs in grasslands with a native component. Host plant is *Viola pedunculata.*	Absent. Current populations known only south of San Francisco.
California red-legged frog *Rana draytonii*	FT/CSC	Breeds in stock ponds, pools, and slow-moving streams.	Absent. Although present at various localities within Marin County, including Muir Beach and Rodeo Lagoon, no suitable habitat in project area.
San Francisco garter snake *Thamnophis sirtalis tetrataenia*	FE/CE	Most often observed in the vicinity of standing water; ponds, lakes, marshes, and sloughs. Temporary ponds and seasonal bodies of water are also used. Banks with emergent and bankside vegetation are preferred and used for cover.	Absent. Historically occurred on San Francisco peninsula but current populations known only south of San Francisco.
American peregrine falcon *Falco peregrinus anatum*	DL/DL	Woodlands, coastal habitats, riparian areas, coastal and inland waters, humanmade structures that may be used as nest or temporary perch sites.	Moderate. Although the species is present near the Bay Bridge, it is unlikely to forage in the project area.
Western snowy plover *Charadrius alexandrius nivosus*	FT/CSC	Sandy coastal beaches, salt pans, coastal dredged spoils sites, dry salt ponds, salt pond levees, and gravel bars. Nests in sandy substrate and forages in sandy marine and estuarine bodies.	Present. Overwintering populations on Ocean Beach and smaller population at Wildlife Protection Area at Crissy Field. Periodically sighted at other beaches such as Baker Beach and Rodeo Beach.
Brown pelican *Pelecanus occidentalis*	DL/DL&FPS	Nests on protected islets near freshwater lakes and marine waters.	Present. Forage and roost within the project area.
California least tern *Sterna antillarum browni*	FE/FPS	Feeds in relatively shallow, near-shore waters, coastal freshwater ponds, channels, and lakes occupied by small fish. Colonial nesters on sand, gravel, or shell beaches where visibility is good.	Present. Forages within the project area. Nearest extant breeding colony in San Francisco Bay is located at the former Alameda Naval Air Station.
Bank swallow *Riparia riparia*	--/ST	Requires vertical banks/cliffs with fine textured/sandy soils near streams, rivers, lakes, ocean to dig nesting burrows.	Present. Species nests in the Fort Funston cliffs.

TABLE 5.14-1 (Continued) [REVISED]
SPECIAL-STATUS UPLAND SPECIES CONSIDERED IN EVALUATION OF THE PROJECT AREA

Common Name *Scientific Name*	Listing Status USFWS/ CDFG/CNPS[a]	General Habitat	Potential for Species Occurrence Within Project Area
STATE OR FEDERALLY LISTED SPECIES (cont.)			
San Francisco lessingia *Lessingia germanorum*	FE/CE/List 1B	Remnant dunes in coastal scrub	Present. Extant at ~~Crissy Field dune habitat.~~ Baker Beach.
Presidio manzanita *Arctostaphylos hookeri* ssp. *ravenii*	FE/CE/1B	Chaparral, coastal prairie, coastal scrub.	Present. Extant at Baker Beach.
Marin dwarf-flax (Marin western flax) *Hesperolinon congestum*	FT/CT	Serpentine chaparral (coastal prairie-grassland) habitat.	Present. Extant at Baker Beach. ~~Crissy Marsh~~.
California seablite *Suaeda californica*	FE/ 1B.1	Coastal salt marshes.	Absent. Species was reintroduced into Crissy Marsh; however, no transplants survived.
Presidio clarkia *Clarkia franciscana*	FE/CE/List 1B.1	Inhabits coastal scrub, valley and foothill grasslands.	Present. Known from Inspiration Point and along bluffs east and north of Baker Beach.
OTHER SPECIAL-STATUS SPECIES			
ANIMALS			
San Francisco forktail damselfly *Ischnura gemina*	None	Permanent freshwater marshes	Low. The damselfly is limited to wetland vegetation. Reported from ditch adjacent to Marine Drive.
Tree lupine moth *Actinemys marmorata*	FSC/--	Coastal sand dunes are typically associated with the moth's larval host plant, yellow bush lupine (*Lupinus arboreus*).	Moderate. The tree lupine moth is found at several locations south of the Golden Gate Bridge.
Western pond turtle *Actinemys marmorata*	FSC/CSC	Freshwater ponds and slow streams edged with sandy soils for laying eggs.	Low. Aquatic habitat not available in the project area. Nearest occurrence is Lake Merced.
Great blue heron *Ardea herodias*	--/* Rookeries only	Nest colonially in groves of trees. Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes.	Low. Breeding has been observed at Stow Lake in Golden Gate Park, and at Lake Merced, ~~but project area lacks suitable habitat~~. Known to nest at Alcatraz as individuals.
Great horned owl *Bubo virginianus*	--/3503.5	Often uses abandoned nests of corvids or squirrels; nests in large oaks, conifers, eucalyptus.	Present. Breeds in the historic forest of the Presidio.
Sharp-shinned hawk *Accipiter striatus*	--/CSC	Nests in forest canopy	Present. Breeds in the historic forest of the Presidio.
Red-shouldered hawk *Buteo lineatus*	--/3503.5	Usually nests in large trees, often in woodland or riparian deciduous habitats. Forages over open grasslands and woodlands.	Present. Breeds in the historic forest of the Presidio.
Red-tailed hawk *Buteo jamaicensis*	--/3503.5	Usually nests in large trees, often in woodland or riparian deciduous habitats.	Present. Breeds in the historic forest of the Presidio.
Northern harrier *Circus cyaneus*	--/CSC	Mostly nests in emergent vegetation, wet meadows or near rivers and lakes, but may nest in grasslands away from water.	Probable, but does not breed in the historic forest of the Presidio.

TABLE 5.14-1 (Continued) [REVISED]
SPECIAL-STATUS UPLAND SPECIES CONSIDERED IN EVALUATION OF THE PROJECT AREA

Common Name *Scientific Name*	Listing Status USFWS/ CDFG/CNPS[a]	General Habitat	Potential for Species Occurrence Within Project Area
OTHER SPECIAL-STATUS SPECIES (cont.)			
ANIMALS (cont.)			
American kestrel *Falco sparverius*	--/3503.5	Nests in cavities in large trees near open areas.	Probable. Breeds in the historic forest of the Presidio.
Double-crested cormorant *Phalacrocorax auritus*	--/CSC	Nests colonially on coastal cliffs, offshore islands, and along lake margins.	Present. Breeds on Yerba Buena Island and roosts on Little Alcatraz just offshore Alcatraz and forages throughout the project area.
Allen's hummingbird *Selasphorus sasin*	FSC/* (AWLY)	Inhabits coastal scrub and a variety of woodlands and riparian habitat, as well as gardens in the urban-wildland interface.	Low. Suitable nesting and foraging habitat is present throughout San Francisco, but not along the northern waterfront at spectator sites or secondary viewing areas.
Black-crowned night-heron *Nycticorax nycticorax*	*(Nesting colony)	Nests colonially on along margins of water bodies.	Present. Breeds on Alcatraz and forages throughout the project area.
Snowy egret *Egretta thula*	*(Nesting colony)	Nests colonially on along margins of water bodies.	Present. Breeds on Alcatraz and forages throughout the project area.
Black oystercatcher *Haematopus bachmani*	*(Nesting colony)	Nests frequently on islands, where a pair builds a nest above the high tide mark and then defends an adjacent feeding area.	Present. Nests near Pier 98, Alcatraz, Marin Headlands, and Baker Beach.
Caspian tern *Sterna caspia*	*(Nesting colony)	Nests in colonies on sandy estuarine shores, on levees in salt ponds, and on islands in alkali and freshwater lakes	Present. Nests at Pier 64.
Townsend's Pacific big-eared bat *Corynorhinus townsendii townsendii*	FSC/CSC	Inhabits a variety of habitats, requires caves or human made structures for roosting.	Present. Potential roosting habitat is available in abandoned or underused buildings throughout the project area. Recorded CNDDB occurrence at Angel Island.
Fringed and Yuma myotis *Myotis thysanodes, yumanenesis*	FSC/--	Inhabits a variety of woodland habitats, roosts in crevices or caves, and forages over water and open habitats.	Low. Potential roosting abandoned or underused buildings in the project area.
Angel Island mole *Scapanus latimanus insularis*	/CSC	Inhabits northern coastal scrub and chaparral.	Presumed present on Angel Island.
PLANTS			
Dune gilia *Gilia capitata ssp. chamissonis*	//List 1B.1	Restricted to coastal dunes and sandy openings in coastal scrub from San Francisco to Bodega Bay.	Present. Know from Yerba Buena Island and introduced at Crissy Field, Baker Beach, and Lobos Creek Valley.
Presidic manzanita *Arctostaphylos montana* ssp *ravenii*	//List 1B.1	Inhabits coastal scrub, occasionally serpentinite.	Present. Introduced west of Lincoln Boulevard, near Baker Beach.
Franciscan manzanita *Arctostaphylos franciscana*	//List 1B.1	Inhabits coastal scrub, occasionally serpentinite.	Present. Recently re-discovered near the project area.
San Francisco Bay spineflower *Chorizanthe cuspidata* var. *cuspidate*	//List 1B.2	Inhabits coastal scrub, coastal dunes.	Probable. California Natural Diversity Database (CNDDB) records in project area.

TABLE 5.14-1 (Continued) [REVISED]
SPECIAL-STATUS UPLAND SPECIES CONSIDERED IN EVALUATION OF THE PROJECT AREA

Common Name *Scientific Name*	Listing Status USFWS/ CDFG/CNPS[a]	General Habitat	Potential for Species Occurrence Within Project Area
OTHER SPECIAL-STATUS SPECIES (cont.)			
PLANTS (cont.)			
Franciscan thistle *Cirsium andrewsii*	//List 1B.2	Inhabits coastal scrub, coastal bluff scrub.	Present. Occurs in Marin Headlands. 2008 CNDDB record from Fort Pont vicinity.
Blue coast gilia *Gilia capitata* ssp. *chamissoni*	//List 1B.1	Inhabits coastal scrub, coastal dunes.	Probable. Multiple current CNDDB records in project area.
Point Reyes bird's beak *Cordylanthus maritimus ssp. palustris*	//List 1B.2	Inhabits coastal salt marsh, wetland-riparian.	Present. Reintroduced into Crissy Field area.
San Francisco gumplant *Grindelia hirsutula* var. *maritime*	//List 1B.2	Inhabits coastal scrub, valley and foothill grasslands.	Present. Known from Baker Beach.
San Francisco campion *Silene verecunda* ssp. *verecunda*	//List 1B.2	Inhabits coastal scrub, valley and foothill grasslands.	Present. Known from Crissy Field area.
San Francisco owl's clover *Triphysaria floribunda*	//List 1B.2	Inhabits coastal scrub, valley and foothill grasslands.	Present. Known from Doyle Drive area.

As discussed in Response BIU-5a, the EIR text at the top of page 5.14-12 is revised as follows:

> The **tree lupine moth** is a federal ~~special~~ species of concern and is found at several locations south of the Golden Gate Bridge. Coastal sand dunes are typically associated with the moth's larval host plant, *Lupinus arboreus*. The project would not remove any woody plants, and these areas would be further protected by exclusion fencing described in ~~**Mitigation Measure M-BI-1a** (Protecting Sensitive Areas for Mission Blue Butterfly~~ Mitigation Measure M-BI-1b (Protecting Listed and Other Special Status Plant Areas).

As discussed in Response BIU-2, The text on page 5.14-16, first paragraph, is revised as follows:

> **Raptor Species**
>
> The following raptor species are protected by the Fish and Game Code or are California Species of Special Concern, and breed in large trees or tree cavities in the Presidio's historic forest:[20] great horned owl (*Bubo virginianus*), sharp-shinned hawk (*Accipiter striatus*), red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus cyaneus*), and American kestrel (*Falco sparverius*). The peregrine falcon (*Falco peregrinus anatum*)~~,~~ breeds successfully in the area and forages near the Bay Bridge, in the City of San Francisco, and roosts on and forages near the Golden Gate Bridge.

As discussed in Response BIU-3, the EIR text on page 5.14-18 is revised as follows:

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (16 USC, Section 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act applies to whole birds, parts of birds, and bird nests and eggs. Most birds, except game and non-native birds, are covered by the Act. ~~Marine birds that are covered by provisions of the Migratory Bird Treaty Act and could be expected to be present in the project area include the brown pelican (*Pelicanus Occidentalis*), double-crested cormorant (*Phalacrocorax auritus*), and the western gull (*Larus occidentalis*).~~

As discussed in Response BIU-3, the following text is added to page 5.14-18, after the second full paragraph:

Airborne Hunting Act

The Airborne Hunting Act is a subsection of the Fish and Wildlife Act. Approved in 1971 and amended and approved in 1972, the act prohibits shooting or attempts to shoot birds, fish, or other animals while airborne; use of an aircraft to harass any bird, fish or other animal; and knowing participation in using an aircraft for either activity. The act does not apply to persons employed by, or operating under permit authorization from, any state or the United States who is employed in protecting land, water, wildlife, livestock, domesticated animals, human life, or crops.

As discussed in Response BIU-3, the EIR text on page 5.14-19, the section on "The Presidio Trust Management Plan," is revised to include additional relevant federal plans and policies, as follows:

The Presidio Trust Management Plan and General Amendment

The Presidio Trust Management Plan was designed to ensure the preservation of the Presidio's National Historic Landmark District, the restoration of valuable natural resources, and the opportunity for diverse and meaningful visitor experiences, while ensuring the long-term environmental and financial sustainability of the park. The plan is not an implementation plan, but a statement of policy to guide future implementation decisions. The plan was developed through an extensive public process and will undergo future additional planning and public input. ~~declares that the following principles will guide future actions and decisions for biological resources within the Presidio:~~

The plan contains the following relevant policies.

Chapter 1 – Preserving and Enhancing Park Resources

3. Rehabilitate the historic planted forest, and preserve, enhance, and manage other forested areas that provide values such as windbreaks, vistas, screening, and wildlife habitat.

6. Identify, protect, enhance, restore, and expand the Presidio's ecosystems. Protect, establish, and manage areas of native vegetation.
7. Identify, monitor, and protect sensitive wildlife species, and restore and maintain their habitats.
8. Rehabilitate and enhance natural water resources. Manage on-site water resources to protect ground and surface water, natural wetland and riparian habitat, and water supplies for the Presidio community. Protect important native geologic and soil components.

Chapter 3 – Crissy Field (AREA B) District: Bayfront Recreation and Cultural Destination
Guidelines for Open Space/Vegetation/Views

- Protect and restore the ecological communities on the western bluffs.

2001 Vegetation Management Plan and Environmental Assessment for the Presidio of San Francisco

The Vegetation Management Plan (VMP) and Environmental Assessment (EA) have been developed to guide the NPS and the Presidio Trust in the management of vegetation resources at the Presidio. Both natural and historic vegetation resources are protected and enhanced under the VMP and the EA; the central goal of the VMP and EA is the development of sustainable and enduring vegetation that can be managed with less maintenance effort than is currently required, with increased resource sensitivity, and using natural processes whenever possible. Implementation of the VMP will result in a vegetation mosaic of native plant communities, historic forest, and landscape vegetation, which will increase species diversity in the Presidio.

The VMP and EA contain the following relevant objectives.

Section 3.2.2 Objectives for Management of Native Plant Communities

- Protect and enhance existing native plant communities and their remaining habitat by removing threats to native species, repairing damage to habitat, and increasing reproductive success.
- Restore and enlarge native plant communities by reclaiming habitat from past development, non-native species, and non-native trees outside of historic forest management zone.
- Preserve and enhance rare plant species habitats by evaluating species-specific habitat needs and giving high priority to actions that preserve and enhance those habitats.
- Protect and enhance wildlife habitat by expanding habitat for native plants, increasing native species and habitat diversity, avoiding disturbance to non-native forests with high wildlife value, and avoiding disturbance to wildlife habitat during critical times of the year (e.g., nesting bird season).

Actions to Obtain Objectives

- Continue development of a long-term inventory and monitoring program.
- Protect remaining native plant communities.

- Restore native plant communities.
- Maintain and evaluate restoration success.
- Manage and enhance habitat for rare plants.
- Continue to implement restoration and education programs.

Section 3.3.2 Objectives for Management of Historic Forest Zone

- Preserve live, healthy trees within the historic forest management zone.
- Rehabilitate the aging forest within the historic forest management zone and manage it to become more self-sustaining by increasing structural and species diversity and encouraging natural regeneration.
- Protect and enhance valuable forest wildlife habitats and avoid adverse habitat impact in rehabilitation activities.
- Select replacement tree species to meet specific needs (for example, to reduce canopy height of forest trees adjacent to specific neighboring communities or to provide buffers between historic areas and native plant communities).

Actions to Obtain Objectives

- Apply rehabilitation standards to treatment of historic forest.
- Implement concepts for rehabilitation of the historic forest management zone.
- Preserve key historic forest stands through intensive management.
- Develop multi-agency cooperative agreements.

Section 3.4.3 Objectives for Management of Landscape Vegetation

- Identify and maintain heritage trees.

As discussed in Response BIU-3, the EIR text on page 5.14-20 is revised to include the following text after the section "Golden Gate National Recreation Area Management Plan":

GGNRA Natural Resources Section of the Resources Management Plan

The 1999 Natural Resources Management Plan documented the existing natural resources of the GGNRA and laid out the foundation of a natural resource program to inventory, preserve, and restore habitats and the ecosystems upon which they depend. This plan provides strategies for protecting the natural systems and resources. As stated in the plan, compliance with NEPA and other resource protection legislation is not accomplished through the plan.

2001 Alcatraz Island Historic Preservation and Safety Construction Program

The purpose of the Alcatraz Island Historic Preservation and Safety Construction Program includes protecting the public health and safety of the more than 1 million people who visit Alcatraz each year, preserving the National Historic Landmark District, and implementing the needed repairs in a manner that minimizes impacts on biological resources. The EIS was certified in 2001, and most of the Phase 1 activities of the project have been completed. Mitigation measures implemented as part of the project included:

- Best management practices for in-water construction to protect habitat for Pacific herring
- Height restrictions and monitoring to prevent impacts on Pacific harbor seals and California sea lions hauled out on Alcatraz Island
- Temporal and seasonal restrictions for each construction area and gull minimization measures to protect nesting seabird habitats.
- Special-status plant surveys for San Francisco campion, as well as avoidance/seed collection for any populations discovered on the island

Golden Gate National Recreation Area Park Compendium

All national parks have a compendium, or a list of regulations established under the Park Superintendent's discretionary authority. Regulations regarding biological resources in the 2010 GGNRA compendium are described below.

> *36 CFR 2.2*(e). The entire park is closed to viewing wildlife by artificial light, including infrared lighting.
>
> *36 CFR 7.97*(a). Docking of any privately owned vessels on Alcatraz Island is prohibited, except in emergencies.
>
> (36 CFR 7.97)(d). In the Crissy Field Wildlife Protection Area and Ocean Beach Snowy Plover Protection Area, dogs are required to be on leash all year except from May 15 to July 1.

As discussed in Response BIU-2, the text is changed as follows in the last paragraph of EIR, page 5.14-28, under "Fort Baker and Marine Headlands":

> …the NPS considers suitable – and presumed~~potentially~~ occupied -- habitat to extend west along the Marin Headlands south of Conzelman Road, (a likely spectator route) and especially in the vicinity of Kirby Cove.

As discussed in Response BIU-5a, the EIR text on page 5.14-32, first paragraph, is revised as follows:

> **Mitigation Measure M-BI-1e: Restrictions on Fireworks and Night Lighting**
>
> In consultation with the NPS, fireworks or cannon fire will be limited to protect plovers and nesting birds on Alcatraz from harassment. Such restrictions are likely to limit where such activities are staged, or stipulate maximum allowable noise (decibels) at the Crissy Field WPA or at Alcatraz. Where exterior lights are to be left on at night, the AC34 project sponsor shall install fully shielded and downward cast lights to contain and direct light away from habitat, the sky, and Bay waters.

As discussed in Response BIU-2, EIR text on page 5.14-32, bottom of the page, is revised as follows (deleted text is shown as ~~strikethrough~~ and new text is underlined):

> As noted above in Section 5.14.1.5, the project area supports five sensitive natural communities recognized by CDFG and/or in this EIR: California Buckeye Woodland on Yerba Buena Island; Coastal Bluff Scrub (including northern coastal [*Franciscan*] scrub on Yerba Buena Island) and serpentine habitat, south ~~and east~~ of the Golden Gate Bridge in the Presidio, and coastal bluff scrub along the Marin Headlands; and Coastal Salt Marsh developed as part of the Crissy Field Restoration Project. ~~In addition, the Crissy Field dune community is identified as a Special Ecological Area (SEA) by the NPS, a community that also occurs at Baker Beach.~~

City staff has revised EIR pages 5.14-47 to 5.14-48, Impact C-BIa, as follows to clarify the cumulative impact analysis:

> **Impact C-BIa: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts on upland biological resources. (Both Projects: Less than Significant)**

Section 5.14.4 Biological Resources – Marine

As discussed in Response BIM-1e, the EIR text on page 5.14-49, third paragraph in Section 5.14.4.1, first sentence, is revised as follows:

> The Central Bay sub-region of the baylands includes the main body of San Francisco Bay, and includes the deepest areas of the Bay and the most natural and man-made hard bottom substrate.[49] The seaward region of the GGNRA is within a federal marine protected area.

As discussed in Response BIM-1b, the EIR text in Section 5.14.4 on page 5.14-52, second full paragraph, is revised as follows:

> Harbor porpoises can be observed in the Bay at any time of the year, although they do not solely inhabit the Bay-Delta but utilize both the waters of the Bay-Delta as well as nearshore coastal waters. The harbor porpoise is a nearshore species, commonly observed near the Golden Gate Bridge and open water areas of the Central Bay, especially between the Golden Gate, Angel Island, and Alcatraz Island. Depending on the tide, they frequently forage for prey fish near Cavallo Point and Yellow Bluff.

As discussed in Response BIM-1b, the EIR text in Table 5.14.2, row 13 and 14, in Section 5.14.4 on page 5.14-60, is revised as follows:

Common Name *Scientific Name*	Listing Status	General Habitat	Potential for Species Occurrence Within Project Area	Time Period Present in Project Area Waters	Common Name *Scientific Name*
Harbor porpoise *Phocoena phocoena*	-/FP	-	An inshore species inhabiting shallow, coastal waters and occasional large rivers, including San Francisco Bay-Delta	C	Year-round
Northern Elephant Seal *Mirounga angustirostris*	-/FP	-	Northern elephant seals are the largest phocid, or "true" seal, in the Northern Hemisphere. They are found in the eastern and central North Pacific Ocean. They range as far north as Alaska and as far south as Mexico, with established Central California breeding colonies on the Farallon Islands, at Año Nuevo State Park, and near San Simeon, California. In recent years, young - of-the-year individuals have been observed hauling out on the sandy beach at Crissy Field.	P	Primarily April to August with occasional occurrences in October and November
Bottlenose Dolphin *Tursiops truncatus*	-/FP	–	Found along the California coastline, bottlenose dolphins segregate into coastal or oceanic ecotypes with the coastal ecotype inhabiting waters within 1-kilometer of shore normally between Baja, California and Point Conception. During El Niño events and in recent years, bottlenose dolphins have been observed as far as San Francisco Bay with individuals making occasional forays to the Golden Gate.	~~P~~C	Potentially Year-round, especially May to October

As discussed in response BIM-1b, the EIR text in Section 5.14.4 on page 5.14-67, first full paragraph, is revised as follows:

> **Harbor Porpoise (*Phocoena phocoena*)**
>
> Harbor porpoises are nonsocial animals usually seen in groups of 2 to 5 individuals, although recently larger groups of individuals have been reported in the area between the Golden Gate, Angel Island and Alcatraz Island, especially during peak tidal flow.[117a]

[117a] William Kenner, "Safe harbor: Welcoming Porpoises Back to San Francisco Bay," *Bay Nature*, http://baynature.org/articles/jul-sep-2011, July-September 2011.

As discussed in Response BIM-1f, the EIR text on page 5.14-72, second paragraph in Section 5.14.4.6, is revised as follows:

> San Francisco Bay and Delta have more than 230 identified introduced taxa inhabiting its estuarine and marine waters. San Francisco Bay-Delta has been described as the most invaded estuary in North America.[138] Based on a study published in 1995, the number of newly detected invasions of introduced taxa averaged one per every 55 weeks from 1851 to 1960; this compared to an average of one newly detected invasion every 14 weeks from 1961 until 1995 ~~It is currently estimated that a new aquatic species is introduced into the San Francisco Bay-Delta every 14 weeks, whereas prior to 1960 the rate was once every 55 weeks~~.[139]

As discussed in Response BIM-1f, the EIR text on page 5.14-72, paragraph 4 and continuing onto page 5.14-73, is revised as follows:

> Invasive organisms are introduced by a variety of methods, the most prevalent being shipping.~~, of which the largest single source is in ballast water. Other~~ Primary methods of introduction include ballast water and fouling organisms that have attached themselves to ship hulls, ~~navigation buoys,~~ anchors, and anchor chains[141a], such as the Asian kelp, *Undaria pinnatifidam*.~~;~~ Additional sources include recovered flotsam; "live" rock and plants from the aquarium trade; the accidental release of animals from packing materials by restaurants serving live seafood; and the live bait industry.[142]

As discussed in Response BIM-2a, the EIR text on page 5.14-78, paragraph 3, is revised as follows:

> ### *Marine Invasive Species Act*
>
> All shipping operations that involve major marine vessels are subject to the Marine Invasive Species Act of 2003 (Public Resources Code Sections 71200 through 71271), which revised, ~~and~~ expanded, extended, and renamed the California Ballast Water Management for Control of Non-indigenous Species Act of 1999 (AB 703). ~~This~~ The Marine Invasive Species Act ~~act~~ is administered by the State Lands Commission through its Marine Invasive Species Program and applies to all domestic and foreign vessels over 300 gross registered tons. The Act, as amended in subsequent years, has primarily focused on regulating ~~regulates~~ the handling of ballast water from marine vessels arriving at California ports in order to prevent or minimize the introduction of non-native invasive species (NIS)~~from other regions~~. Other requirements of the Act are concerned with hull husbandry and the reduction of fouling and the spread of NIS from fouling organisms as well as data gathering to better understand NIS threats to state waters and marine communities.

As discussed in Response BIM-5b, Tables 5.14-6 and 5.14-7 on pages 5.14-90 and 5.14-91, respectively, are updated as shown below:

[141a] Hewitt, C. and M. Campbell, *The relative contribution of vectors to the introduction and translocation of invasive marine species*, Final Report prepared for the Australian Department of Agriculture, Fisheries and Forestry, 56 pages, 2010.

TABLE 5.14-6 [REVISED]
ESTIMATED NEAR-SOURCE UNDERWATER NOISE LEVELS FROM STEEL PILE DRIVING

Pile Size/Type	Relative Water Depth	Distance from Piling Measurement Taken	Average Sound Pressure Peak (dB)	Average Sound Pressure SEL[2] (dB)	Attenuation Device
***Vibratory Hammer*[1]**					
12-inch Steel	5 meters	10 meters	165-171	150-155	None
24-inch Steel	15 meters	10 meters	175-182	160-165	None
72-inch Steel	5-30 meters	10 meters	183-195	160-180	None
Impact Hammer					
24-inch Steel[3]	-	10 meters	205	178	None
24-inch Steel[3]	-	10 meters	200	173	Bubble curtain
66-inch Steel[1]	<5 meters	30 meters	203	173	None
96-inch Steel[1]		10 meters	220	194	None
24-inch Square Concrete[1]	3-4 meters	10 meters	185	RMS[5] = 173	None
24-inch Square Concrete[1]	3-4 meters	20 meters	178	RMS = 165	None
24-inch Octagonal Concrete[1]	10-15 meters	10 meters	184	166	None
24-inch Octagonal Concrete[1]	10-15 meters	100 meters	174	152	None
16-inch Concrete[1]	10 meters	10 meters	184	RMS = 173	None

[1] Source: Caltrans. 2009. Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish. Final Report. Prepared for California Department of Transportation by ICF Jones & Stokes and Illingworth and Rodkin, Inc. February 2009. http://www.dot.ca.gov/hq/env/bio/files/Guidance_Manual_2_09.pdf.

[2] SEL- sound Exposure Level (SEL) for 1 second of continuous driving.

[3] URS. 2011. Draft Environmental Impact Report for the Pier 36/Brannan Street Wharf Project. Case No. 2009.048E. State Clearinghouse No. 2009122058. Prepared for the San Francisco Planning Department. February 9, 2011.

[4] URS. 2011. Draft Environmental Impact Report for the Pier 36/Brannan Street Wharf Project. Case No. 2009.048E. State Clearinghouse No. 2009122058. Prepared for the San Francisco Planning Department. February 9, 2011.

[5] RMS is Root Mean Square

TABLE 5.14-7 [REVISED]
ESTIMATED IMPACT HAMMER PILE DRIVING SOUND LEVELS AND DISTANCES TO CRITERIA LEVELS

Pile Type	Measured Sound Levels[1] (dB)			Distance Required to Reach Sound Level Thresholds[2] (feet)		
	Peak Sound Level	SEL	Root Mean Square (RMS) Sound Level	Peak Sound Level 206 dB	Accumulated Sound Level 187 dB (> 2g fish)	Accumulated Sound Level 183 dB (< 2g fish)
24-inch (concrete)	184	166	-	-	59	108
66-inch (steel)	203	173	185	-	154	289
90-inch (steel)	214	190	203	223	1,410	2,608

[1] The distance at which sound levels were measured were 30-meters for the 66-inch piling and 10-meters for the 90-inch piling

[2] Calculated according to protocols outlined in: Caltrans. 2009. Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish. Final Report. Prepared for California Department of Transportation by ICF Jones & Stokes and Illingworth and Rodkin, Inc. February 2009. http://www.dot.ca.gov/hq/env/bio/files/Guidance_Manual_2_09.pdf.

As discussed in Responses BIM-8, HY-7, HY-9c, and HY-9d, the EIR text on pages 5.14-100 to 5.14-103 is revised as follows:

Mitigation Measure M-BI-12: Visiting Mariners Information

The AC34 project sponsor shall prepare as part of their Water and Air Traffic Plan information for visiting mariners as well as procedures for the dissemination of this information to visiting boaters prior to or upon arrival to San Francisco Bay for the AC34 2012 and 2013 races. This information to be made available to visiting boaters shall include, but not be limited to information educating boat owner/operators about sensitive habitats and species in the Bay and actions they are required to implement to avoid impacts to marine resources. The plan shall also include information on how to employ environmentally sound boating practices and where to find environmental services to ensure clean boating habits. The plan shall identify marinas that are available for use by visiting mariners (e.g., marinas in San Francisco and Marin County) and provide information about the locations of environmental services that boaters in these marinas are most likely to need. Educational materials shall clearly address, in multiple languages, common sources of pollution from boats and marinas and ~~outline~~ relevant regulations and clean boating policies, and shall provide a succinct description of best management practices to prevent pollution from common sources including oil and fuel, sanitary waste, detergents, hazardous waste, and marine debris (including the use and proper disposal of oil adsorbents in power boat bilges).

The visiting mariners information in the Water and Air Traffic Plan shall include details on how this information will be disseminated to visiting boaters, including but not limited to brochures, ~~or~~ pamphlets, or educational signs; AC34 websites; boating, cruising, and newspaper periodicals; social media; ~~and~~ area yacht clubs and marinas; and all AC34 mooring locations. Educational information shall be made available at waterway entry points such as boat launch ramps, marinas, yacht clubs, and ports, in partnership with appropriate agencies and where cooperation from boater facilities can be achieved. The plan shall be prepared soliciting input from and in cooperation with the National Marine Fisheries Service (NMFS), United States Coast Guard (USCG), California State Lands Commission, California Department of Fish and Game (CDFG), ~~National Park Service (NPS),~~ California Department of Parks and Recreation (CDPR), Bay Conservation and Development Commission (BCDC), State Water Resources Control Board, California Department of Boating and Waterways (DBW), the Port of San Francisco, San Francisco Estuary Partnership, ~~and~~ local organizations active in protecting Bay marine resources, and relevant industry stakeholders, including but not limited to California Harbormasters and Port Captains Association, Marine Recreation Association, Clean Marinas California Program, Recreational Boaters of California, the Pacific Inter-Club Yacht Association, boat yard representatives, and local San Francisco Bay Area yacht clubs.

Visiting Mariners Information contained within the Water and Air Traffic Plan shall include, but not be limited to the following items:

- Information on the location of eelgrass beds in the Central Bay, especially Richardson Bay and adjacent to Angel, Alcatraz, and Treasure Islands and the importance of protecting and avoiding these sensitive habitats (e.g., by not anchoring in or transiting through them)

- Marinas and safe anchoring and mooring locations and methods ~~in the Bay where~~ that boaters may use to dock or anchor their vessels in San Francisco Bay and in nearby bays and other waterways

- Information on where boaters may safely dock dinghies and vessel tenders when coming on shore

- Information on proper and legal waste handling in the Bay and facilities for onshore disposal during the AC34 activities

- Information on invasive species and their impact on Bay marine ecosystems and boaters as well as ~~and preventative steps~~ best management practices developed by the AC34 Invasive Species Task Force that boaters should implement ~~take~~ to prevent the introduction or spread of invasive species into and out of the San Francisco Bay. These provisions will include but not be limited to pending and proposed regulations by state and federal agencies responsible for the control of invasive organisms and will incorporate established effective strategies such as "clean before you go."

- Information on the Vessel Traffic Service for San Francisco Bay and changes that will be in place during AC34 races

- Federal and state regulations prohibiting the harassment of marine mammals

- Information on any buffer zones established around Central Bay islands and other Bay locations to protect sensitive bird nesting sites

- ~~Information about onsite and nearby environmental services that support clean boating practices~~ Materials produced by DBW that include information about onsite and nearby environmental services that support clean boating practices (such as the locations of sewage pump outs, oil change facilities, used oil recycling centers, bilge pump outs, absorbent pad distribution and spent pad collection, and boat-to-boat environmental services).

  These materials should include but not be limited to:

  - Environmental Boating Laws Brochure; www.coastal.ca.gov/ccbn/EnvironmentalLawsBrochure.pdf
  - ABCs of California Boating Law; www.dbw.ca.gov/Pubs/abc/
  - Clean Boating Habits; www.dbw.ca.gov/Pubs/CleanBoatingHabits/Default.aspx
  - San Francisco Bay Area Clean Boating Map; http://www.coastal.ca.gov/ccbn/SF_Bay_Celan Boating_Map.pdf
  - San Francisco Bay Pumpout Guide and Map for Baoters; www.sfestuary.org/userfilesBay%20Guide.pdf and www.sfestuary.org/userfilesBay%2-Map.pdf

- A Boaters Guide to Keeping Pollutants Out of the Water; www.coastal.ca.gov/ccbn/bindercard.pdf

- Information regarding the importance of keeping plastic out of Bay waters

- Signage regarding locations of waste collection containers posted at and adjacent to temporary docks, berthing facilities, and areas used by moored spectator vessels (10 vessels or more) developed for the AC34 events

> Due to the extent of berthing, mooring, and marina facilities within the Bay shoreline, the project sponsor shall coordinate with other jurisdictions with respect to waste management at secondary viewing areas, such as (but not limited to) Treasure Island, Angel Island, Sausalito, Belvedere, and Tiburon. Coordination and outreach efforts with those jurisdictions would further minimize the potential for discards and pollution to enter Bay waters from private vessels. Additionally, the project sponsor ~~c~~would develop, as part of official AC34 event literature, maps of the marinas that show the locations of fuel docks, sewage pumpouts, portable toilets, dump stations, used oil collection services, bilge pumpouts, oil absorbent pad distribution and collection services, oil change services, solid waste recycling services, and other environmental services for boaters. The sources of information for literature and maps developed under this mitigation measure will include, as appropriate, information available through resources such as the San Francisco Estuary Partnership and California's Boating Clean and Green Campaign (including the San Francisco Bay Area Clean Boating Map) subject to agreement with the resources agencies and organizations providing input to the development of the outreach materials.

As discussed in Response BIM-4a, Figure 5.14-7, page 101, is revised as shown on the following page.

As discussed in Response BIM-7, the EIR text on page 5.14-111 (Mitigation Measure M-BI-16, Invasive Marine Species Control) is revised as follows:

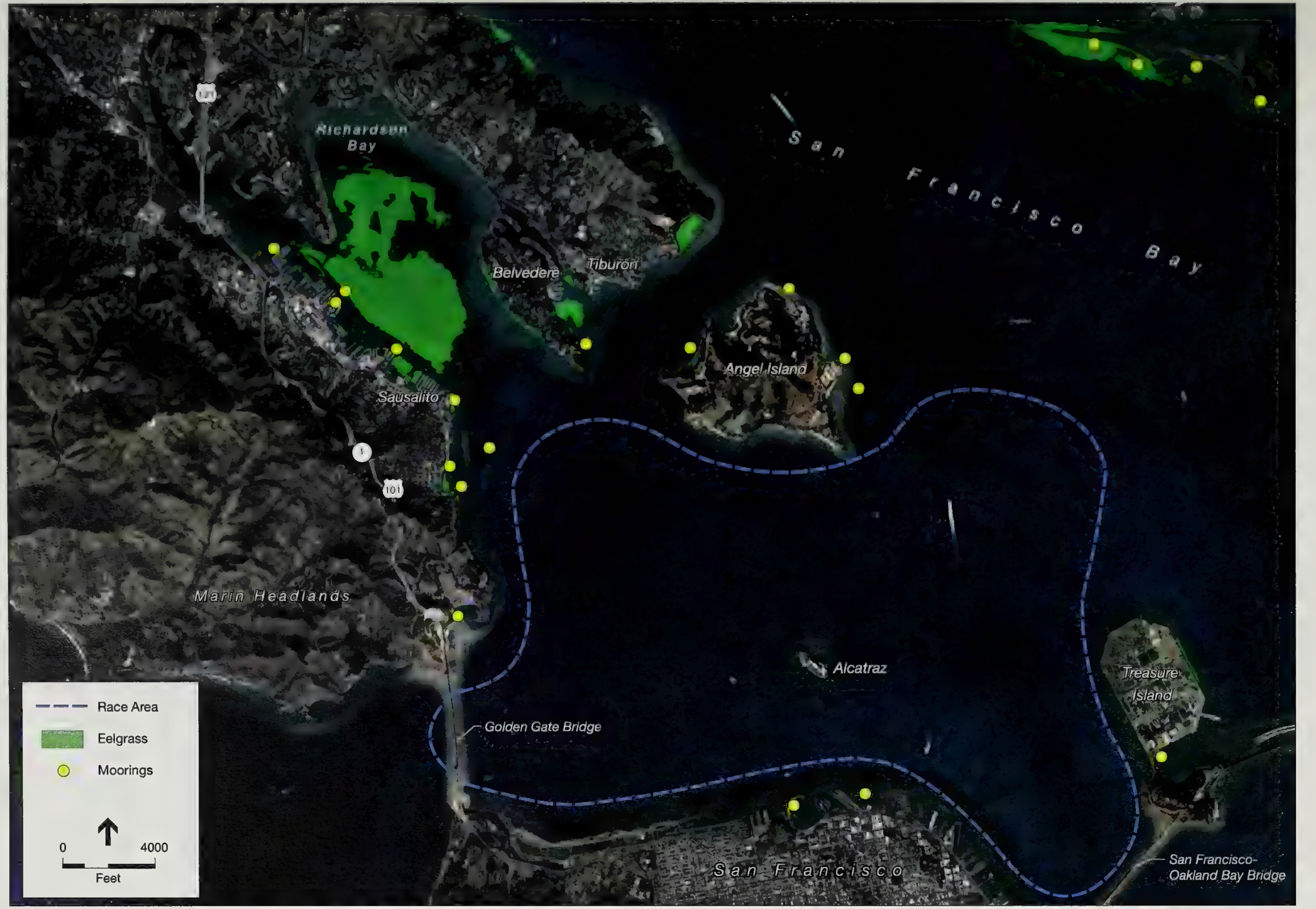
> **Mitigation Measure M-BI-16: Invasive Marine Species Control**
>
> The project sponsor shall develop and implement an Invasive Species Control Plan prior to commencement of any in-water work including piers, wharfs, bulkheads, pile driving, and installation of temporary structures. The plan shall be prepared in consultation with the United States Coast Guard (USCG), RWQCB, and the Port of San Francisco ~~other relevant state agencies~~.

City staff has revised EIR page 5.14-112 following the last bullet as follows to incorporate project updates:

- *Pier ½*. Pier ½ is 24,000 square-feet in area and physically connected to Section 7 of the bulkhead wharf. The Port "red-tagged" and vacated the pier and secured it with fencing in 2008 due to structural deficiencies in the substructure and supporting piles. Fill removal at this location would result in the removal of the entire 24,000 square-foot pier deck and substructure.

City staff has revised EIR page 5.14-117, Impact C-BIb, as follows to clarify the cumulative impact analysis:

> **Impact C-BIb: The projects, in combination with other past, present, and reasonably foreseeable future projects, could result in significant adverse cumulative impacts on marine and estuarine biological resources. (AC 34 project: Less than Significant with Mitigation; Cruise Terminal project: Less than Significant)**



SOURCE: Google Earth Maps; ESA; Habitat Goals Project

Case No. 2010.0493E: AC34 / Cruise Terminal and Northeast Wharf Plaza (210317)

Figure 5.14-7 (Revised)
Location of Eelgrass Beds in the Central Bay

City staff has revised EIR page 5.14-119, as follows to clarify the cumulative impact analysis:

Mitigation of Cumulative Impacts

As described above, the AC34 project's contribution to cumulative impacts on marine biological resources would be reduced to less than significant with mitigation listed below. As described in Impact BI-17, above, neither construction nor operation of the Cruise Terminal project would affect the existing marine biological resources conditions, and therefore the Cruise Terminal project's contribution to cumulative impacts would be less than significant, and no mitigation is required.

AC34 Project Mitigation:

Mitigation Measure M-BI-11a: Impact Hammer Pile Driving Noise Reduction for Protection of Fish

Mitigation Measure M-BI-11b: Pile Driving Noise Reduction for Protection of Marine Mammals

Mitigation Measure M-BI-11c: Floating Dock Night Lighting

Mitigation Measure M-BI-12: Visiting Mariners Information

Mitigation Measure M-BI-14: Restrictions on Low-Flying Aircraft

Mitigation Measure M-BI-16: Invasive Marine Species Control

Section 5.15 Geology and Soils

As discussed in Response GE-1, the following revisions are made to Mitigation Measure M-GE-2, Site-Specific Geotechnical Investigation, on EIR page 5.15-19:

Mitigation Measure M-GE-2, Site-Specific Geotechnical Investigation

The project sponsor shall conduct a site-specific geotechnical investigation for piers requiring upgrading under the direction of a geotechnical engineer prior to permitting any new construction or reuse that would increase the load of the structure. The investigation shall be performed to evaluate subsurface conditions and existing structural conditions at the site, and shall evaluate the potential for geological and seismic hazards including settlement, ground shaking, ground rupture, liquefaction, subsidence, slope stability, and lateral spreading. Recommendations shall be made regarding the pile and foundation requirements, seawall stability, seismic design, and mitigation of geologic hazards, and these recommendations shall be included in the project design, subject to the review and approval by the Port of San Francisco Chief Harbor Engineer to determine compliance with the Port of San Francisco Building Code.

As discussed in Response GE-2, the second paragraph on EIR page 5.15-22 is revised as follows:

> The AC34 events are expected to attract large crowds that may seek vantage points other than the spectator venues that are being provided by the project sponsor, known as secondary viewing areas as described in Section 5.1. In particular, these potential secondary viewing locations include other National Park Service lands (e.g., within the Presidio or Marin Headlands), the Sausalito waterfront, Angel Island (managed by the California State Parks), and Treasure Island/ Yerba Buena Island. Viewers could also seek vantage points at Lower Fort Mason. As discussed in Section 5.11, Recreation, these areas may experience an increase in pedestrian traffic. This increased use could cause erosion and disturbance to existing vegetation if the increase in visitors is sufficient to result in overuse and damage to trails and vegetation or would result in the creation of casual trails between public streets and parking areas. However, these secondary viewing areas are generally open space/park areas accessible to the public and designed for extensive public uses; with the possible exception of very high visitation levels anticipated on the final peak weekend race days (see Chapter 3, Section 3.4.3, AC34 Visitation Estimates), the level of visitors at the secondary viewing areas for most of the AC34 events would be expected to be within the range of existing use levels. Nevertheless, as described in Chapter 3, Project Description, the project sponsors would implement the Parks Event Operations Plan, requiring coordination with ~~the Golden Gate National Recreational Area, and~~ California State Parks and the National Park Service on crowd control, fencing, and signage to reduce damage to vegetation and erosion at the secondary viewing areas. Furthermore, the City and Event Authority as the AC34 project sponsors are actively coordinating with neighboring jurisdictions in Marin County, including Sausalito and Belvedere, to address planning and preparation for the AC34 events to avoid or minimize effects on resources. (See also Section 5.11, Recreation, for discussion of potential impacts on recreational resources, and Section 5.14, Biological Resources, for discussion of potential impacts on vegetation resources.) In addition, these events are temporary and would not induce erosion over the long term.

City staff has revised EIR pages 5.15-30 to 5.15-31, Impact C-GE, as follows to clarify the cumulative impact analysis:

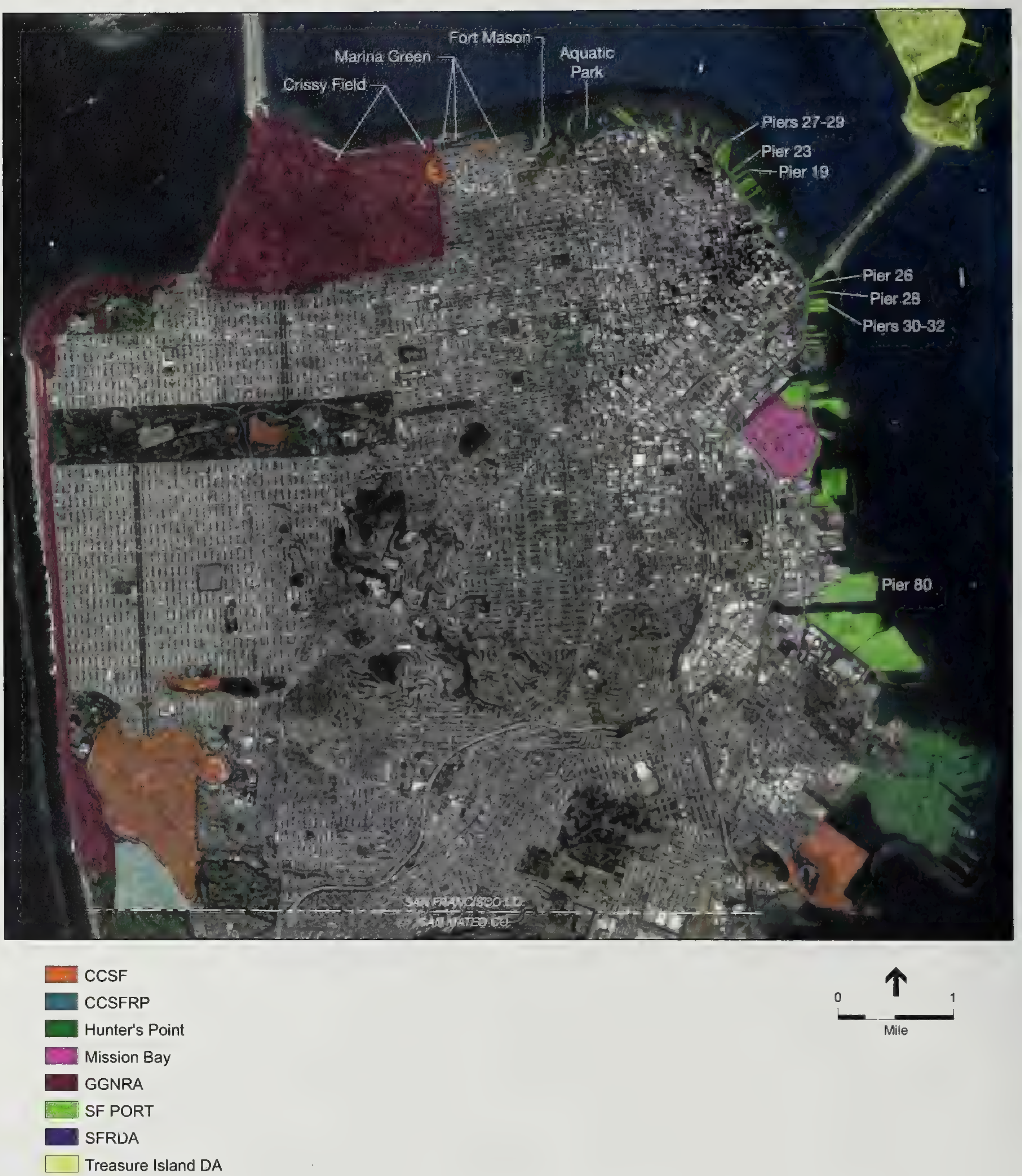
> **Impact C-GE: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts related to geology and soils. (Both Projects: Less than Significant)**

Section 5.16 Hydrology and Water Quality

As described in Response HY-1, the legend on Figure 5.16-2, Areas in San Francisco Served by Separate Sanitary/Storm Sewer Systems (EIR page 5.16-5), is revised to replace "NPS" with "GGNRA" as shown on the next page.

As described in Response HY-1, the EIR text on page 5.16-13, end of the first incomplete paragraph, is revised as follows:

> ~~Much of the system is damaged or of insufficient capacity to accommodate design flows.~~ Unlike most of the City and County of San Francisco, the Presidio ~~operates~~ has separate storm water and sanitary sewer systems.[21]



SOURCE: City of San Francisco

Figure 5.16-2 (Revised)
Areas in San Francisco Served by
Separate Sanitary/Storm Sewer Systems

As discussed in Response HY-9c, the following text is added after the first paragraph on EIR page 5.16-18:

Richardson Bay

> The RWQCB also listed Richardson Bay as an impaired water body. The pollutants listed for Richardson Bay include chlordane, coliform bacteria, DDT, dieldrin, dioxin compounds, exotic species, furan compounds, mercury, and PCBs.[39a]

City staff has added the following text before the first paragraph on EIR page 5.16-28 to describe the Draft Strategic Action Plan recently published by the California Ocean Protection Council:

> The California Ocean Protection Council published its Draft Strategic Action Plan (2012 to 2017) on August 1, 2011. The draft action plan focuses on four substantive areas that will comprise the core of the California Ocean Protection Council's efforts over the next five years, including climate change, sustainable fisheries and marine ecosystems, coastal and ocean impacts from land, and industrial uses of the ocean. The draft action plan also specifies a fifth area that cuts across all four of these focus areas: improved use and sharing of scientific information to support ocean governance and management. Regarding climate change, the draft action plan includes two objectives: 1) to improve state, regional, and local agency understanding of coastal flooding, inundation and shoreline change, and encourage development of adaptation strategies and mitigation measures; and 2) reduce risk to public safety, public health, infrastructure, and other coastal development from long-term impacts of storm events, coastal flooding, and sea level rise. Some of the actions to achieve these goals include development of a methodology to integrate assessment of climate-change phenomena into planning documents, and development of guidance documents to provide recommendations on how to implement adaptation and mitigation strategies. The action plan also promotes development of sea level rise and storm surge hazards maps and use of these maps to inform land use decisions. The California Ocean Protection Council invited public input to the action plan during a formal public comment period as well as through three public workshops convened in August 2011 throughout the state, and anticipates approving the final plan at its December 16, 2011 meeting.

City staff has revised the first paragraph on EIR page 5.16-28 as follows as part of incorporating the above text additions:

> ~~Subsequent to the State Lands Commission 2009 staff report, t~~The Port conducted a detailed study of potential flooding of Port properties north of Pier 64 in 2011. The report used a base year of 2010, and evaluated potential flooding with a sea level rise of 15-inches by the year 2050 and 55-inches by the year 2100.[7] Areas that would be inundated by flooding associated with a 15-inch sea level rise and a 55-inch sea level rise are shown in

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[39a] San Francisco Bay Regional Water Quality Control Board, 2006 *CWA 303(d) List of Water Quality Segments Requiring TMDLs*, approved by the United States Environmental Protection Agency on June 28, 2007.

[7] URS Corporation, *Sea Level Rise and Adaptation Study Coastal Inundation Report*, prepared for Port of San Francisco, May 11, 2011.

Figure 5.16-9. While portions of the waterfront could be inundated by flooding under a 15-inch sea level rise, all of the project area along the San Francisco Bay waterfront would be inundated with a 55-inch sea level rise. When wave runup is added, total water levels would be approximately 1.0 to 1.6 feet higher with a 15-inch rise in sea level and approximately 4.4 to 5.0 feet higher with a 55-inch sea level rise, even with the effects of breakwaters considered.

City staff has added following text after the first paragraph on EIR page 5.16-28 to describe the California Ocean Protection Council report titled "Plastic Debris in the California Marine Ecosystem: A Summary of Current Research, Solution Efforts and Data Gaps" released in September 2011:

5.16.1.7 Ocean Litter

Ocean litter, also commonly referred to as marine debris, is predominantly plastic. Studies indicate that on average, plastic comprises 60 to 80 percent of ocean litter, although in some areas the amount of plastic can reach 90 to 95 percent.[67a] Once in the marine environment, ocean litter tends to accumulate in regions of the ocean where winds and currents converge, such as in the center of a gyre (a large system of rotating currents). Plastics are found in lower concentrations where currents flow consistently in one direction, such as in the southeast Bering Sea and within the California Current, but can still account for a large portion (up to 38 percent of the collected mass).

Despite the MARPOL international treaty prohibition on dumping plastics at sea (discussed in the section titled International Convention for the Prevention of Pollution from Ships (MARPOL)), the amount of debris in the oceans is increasing. Plastic debris in the area north of Hawaii in the Northwest Pacific Gyre has increased 5-fold in the last 10 years. Similarly, off Japan's coast, researchers found that floating particles of plastic debris increased 10-fold in 10 years from the 1970s through 1980s, and then 10-fold again every 2-3 years in the 1990s. In the Southern Ocean, the amount of plastic debris increased 100 times during the early 1990s. Around the British Isles, surveys have shown a 3- to 4-fold increase in the volume of plastic fibers in seawater from the 1960s to the 1990s. Approximately 60 to 80 percent of the debris comes from land-based sources, particularly trash and litter in urban runoff, and 80 percent of this debris is plastic. More than 260 species including turtles, fish, seabirds, mammals, and invertebrates have been reported to ingest or become entangled in plastic marine debris, often resulting in death.

Recognizing the need for immediate and decisive action, the California Ocean Protection Council adopted a resolution titled "Reducing and Preventing Marine Debris" on February 8, 2007. The resolution was aimed at reducing ocean and coastal debris and its impacts to ocean ecosystems, and a key aspect was the need to better understand the science of plastic marine debris in California. Thus the California Ocean Protection Council commissioned the September, 2011 report titled "Plastic Debris in the California Marine Ecosystem" to summarize the current state of research on the sources, distribution, and impacts of plastic marine debris in California, including an emerging field of research: the toxicology of plastics in seawater.

[67a] California Ocean Protection Council. An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter. November 20, 2008

The September, 2011 report found that in California, marine debris, particularly plastic marine debris, has been detected on the shore, floating either on or in the water column, and on the seafloor for decades, although no comprehensive assessment of the entire coast or coastal waters has ever been completed. Recent studies have demonstrated that plastic particles floating in the ocean can concentrate and transport persistent organic pollutants already in the water such as polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), and dichlorodiphenyl trichloroethane (DDTs). Further, in the marine environment, plastic additives such as bisphenol A (BPA) and phthalates can leach out of the plastics and these pollutants can have a variety of health effects on marine organisms in the laboratory setting. Further research is being conducted to evaluate the long-term effects of exposure to these pollutants, whether the pollutants can be transferred up the food chain, and whether the effects of these pollutants are detectable at the population level in the marine environment. Another concern over plastic debris in the marine environment is the ability of invasive species to use floating plastic debris as transport devices, thereby increasing the spread of invasive species.

As discussed in Response HY-2, the following text is added immediately above the section titled "Rivers and Harbors Act" on EIR page 5.16-30:

National Park Service Management Policies 2006

Policies for management of the National Park Service (NPS) are contained within the National Parks Service Management Policies 2006. The policies are intended to comply with current laws, regulations, and executive orders and prevent impairment of park resources and values. Policy 4.6.3, Water Quality of the management policies addresses overall pollution of surface waters and groundwaters, and states the following:

> The pollution of surface waters and groundwaters by both point and nonpoint sources can impair the natural functioning of aquatic and terrestrial ecosystems and diminish the utility of park waters for visitor use and enjoyment. The NPS will determine the quality of park surface and groundwater resources and avoid, whenever possible, the pollution of park waters by human activities occurring within and outside the parks. The NPS will:
>
> - work with appropriate governmental bodies to obtain the highest possible standards available under the Clean Water Act for the protection for park waters;
> - take all necessary actions to maintain or restore the quality of surface waters and groundwaters within the parks consistent with the Clean Water Act and all other applicable federal, state, and local laws and regulations; and

- enter into agreements with other agencies and governing bodies, as appropriate, to secure their cooperation in maintaining or restoring the quality of park water resources.

As discussed in Response HY-2, the following text is deleted from the section titled "Federal Boating Regulations" on EIR page 5.16-33:

> The U.S. Coast Guard Marine Safety Office or local marine patrols also assist enforcing these laws as it is infeasible for the U.S. Coast Guard to catch every violation.[71] ~~The Cruise Lines International Association (CLIA), which most cruise lines belong to, also adopted a set of "Cruise Industry Waste Management Practices and Procedures" in 2001 incorporating legal and voluntary practices for waste minimization, waste reuse and recycling, and waste stream management on the part of the cruise ship industry.[72] The standards were revised in 2006 and are designed to meet or exceed legal requirements and acceptance of these standards is mandatory for membership in the CLIA. To address waste handling, the CLIA member lines have agreed that hazardous wastes and waste streams onboard cruise vessels will be identified and segregated for individual handling and management in accordance with applicable laws and regulations. They have further agreed that hazards wastes will not be discharged to the environment, nor mingled or mixed with other waste streams. The CLIA members have also agreed to meet or exceed the international requirements for removing oil from bilge and wastewater prior to discharge, eliminate (to the maximum extent possible) plastics and other garbage into the environment, and implement water management strategies to minimize the use of fresh water.~~

As explained in Response HY-2, the end of the first paragraph on EIR page 5.16-34 is revised as follows:

> … vessels, recreational and commercial. Amendments to MARPOL adopted in July 2011 become effective on January 1, 2013. Amendments to Annex IV include the possibility of establishing "Special Areas" for the prevention of pollution by sewage from passenger ships. Amendments to Annex V include updating of definitions; the inclusion of a new requirement specifying that discharge of all garbage into the sea is prohibited, except as expressly provided otherwise; expansion of the requirements for placards and garbage management plans to fixed and floating platforms engaged in exploration and exploitation of the seabed; and the addition of discharge requirements covering animal carcasses. The Safety of Life at Sea Convention….

As discussed in Response HY-2, the following text is added to the second paragraph on EIR page 5.16-34 to add a cross-reference to National Pollutant Discharge Elimination System (NDPES) permit requirements for cruise ship discharges:

> …waste stream from cruise ships. NPDES permit requirements pertaining to cruise ship discharges are described below under the section titled Clean Water Act – Boating.

As discussed in Response HY-2, the following text revisions are made to the third full paragraph on EIR page 5.16-35:

> ***Sections 301 and 402.*** Sections 301 and 402 of the CWA establish permit requirements for discharge of pollutants from point sources such as vessels~~, although the U.S. EPA regulations specify that NPDES permits are not required for any discharge of sewage from vessels; effluent from properly functioning marine engines, laundry, shower, and galley sink wastes; or any other discharge incidental to the normal operation of a vessel~~. In 2008, the U.S. EPA adopted the Vessel General Permit that applies to discharges incidental to the normal operation of all non-recreational, non-military vessels of 79 feet or greater that discharge in the waters of the United States. In addition, the ballast water discharge provisions also apply to any non-recreational vessel of less than 79 feet or commercial fishing vessel of any size discharging ballast water. Vessels subject to this permit must submit a Notice of Intent, comply with effluent limitations for discharges, implement corrective actions to fix any permit violations, conduct routine visual inspections and annual inspections, and periodically report to the U.S. EPA and/or U.S. Coast Guard. Covered discharges include ballast water discharges, deck runoff and washdown, graywater discharges, and bilgewater discharges. Failure to comply with this permit can result in severe civil and criminal penalties.

As discussed in Response HY-2, the following text is added to the second paragraph of EIR page 5.16-36:

> …into any designated No Discharge Zone. In accordance with ~~T~~this section of the CWA, ~~is~~ implemented jointly by U.S. Coast Guard and the U.S. EPA, Richardson Bay was designated as a No Discharge Zone in 1987.[79a] The U.S. EPA also proposed a rule in August 2010 to establish all of California marine waters as a No Discharge Zone. This rule would prohibit the discharge of both treated and untreated sewage into California's marine waters from cruise ships and certain large oceangoing ships. It is expected that this rule would eliminate the discharge of approximately 20.4 million gallons of treated vessel sewage currently discharged to California's marine waters each year.[78b] The bulk of the vessel sewage not covered by this proposed rule is generated by recreational vessels that are required to continue using available pumpout stations throughout the state. The U.S. EPA tentatively plans to publish the proposed rule in the Federal Register by November 2011.

As discussed in Response HY-9c, the following text is added to the beginning of the fourth paragraph on EIR page 5.16-36:

> It is illegal to discharge Type I and II MSDs while in "restricted waters" such as a marina, a swimming or wading area, a sanctuary, poorly flushed areas, lakes, reservoirs, or

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[79a] U.S. EPA, No Discharge Zones by State, http://water.epa.gov/polwaste/vwd/vsdnozone.cfm, accessed on September 9, 2011.

[78b] U.S. EPA, "California Non Discharge Zone Proposed Rule Fact Sheet, August 25, 2010 Press Event," http://www.epa.gov/region9/mediacenter/nodischarge/CAnodischarge-factsheet.pdf, accessed on September 9, 2011.

> freshwater impoundments and federally designated No Discharge Zones. In these waters, Type I or II MSDs must be connected to a holding tank or secured to prevent any sewage discharge. Fines of up to $2,200 can be imposed for illegal discharges. Where discharge is legal, ~~F~~for Type I MSDs the fecal coliform count in the effluent must be…

City staff has added the following text to the EIR in Section 5.16 on page 5.16-38 to update the state regulatory framework and describe the Draft Strategic Action Plan published by the California Ocean Protection Council subsequent to the publication of the Draft EIR:

> The California Ocean Protection Council published its Draft Strategic Action Plan (2012 to 2017) on August 1, 2011. The draft action plan focuses on four substantive areas that will comprise the core of the California Ocean Protection Council's efforts over the next five years, including climate change, sustainable fisheries and marine ecosystems, coastal and ocean impacts from land, and industrial uses of the ocean. The draft action plan also specifies a fifth area that cuts across all four of these focus areas: improved use and sharing of scientific information to support ocean governance and management. Regarding climate change, the draft action plan includes two objectives: 1) to improve state, regional, and local agency understanding of coastal flooding, inundation and shoreline change, and encourage development of adaptation strategies and mitigation measures; and 2) reduce risk to public safety, public health, infrastructure, and other coastal development from long-term impacts of storm events, coastal flooding, and sea level rise. Some of the actions to achieve these goals include development of a methodology to integrate assessment of climate-change phenomena into planning documents, and development of guidance documents to provide recommendations on how to implement adaptation and mitigation strategies. The action plan also promotes development of sea level rise and storm surge hazards maps and use of these maps to inform land use decisions. The California Ocean Protection Council invited public input to the action plan during a formal public comment period as well as through three public workshops convened in August 2011 throughout the state, and anticipates approving the final plan at its December 16, 2011 meeting.

As explained in Response HY-9c, the following text is added to the end of the second paragraph on EIR page 5.16-39:

> …SEWPCP. A TMDL for pathogens in Richardson Bay has also been approved by the U.S. EPA and officially incorporated into the Basin Plan. [93a] In accordance with the adopted Basin Plan amendment, discharges of raw or inadequately treated sewage to Richardson Bay from vessels is prohibited and all sources of treated or inadequately treated human wastes have a discharge allocation of zero for fecal colliform.

[93a] San Francisco Bay Regional Water Quality Control Board, Pathogens in Richardson Bay, Adopted Basin Plan Amendment.

As discussed in Response HY-10b, the last sentence of the first paragraph on EIR page 5.16-42 is revised as follows:

> The SWPPP must identify sources of pollutants and the means to manage these sources to reduce stormwater pollution. Any project activities that are regulated under this permit, including water transportation (Standard Industry Code [SIC] 4493) and ship and boat building or repairing yards (SIC 3731), would have to obtain coverage under this permit ~~if they remain in place through the rainy season~~.

As discussed in Response HY-4, the last paragraph on EIR page 5.16-45 and first full paragraph on EIR page 5.16-46 are revised as follows:

> Historically, dredged material from navigation channels in San Francisco Bay was disposed of at various locations within the Bay, primarily at a site near Alcatraz Island (SF-11). In 1982, a large mound of dredged material was discovered at SF-11, posing a navigation hazard and demonstrating the need for site management to address the material type (i.e., grain size) as well as raising concerns regarding the impacts of dredged material disposal on the Bay's fisheries and other ecological resources. The *Long Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region, Management Plan* (LTMS Management Plan)[103] was ~~promulgated~~ adopted in 2000 by the Corps, the U.S. EPA, BCDC, and the San Francisco Bay RWQCB. The adopted LTMS Management Plan is a regional dredge material management program that identifies beneficial reuse as the preferred alternative disposal option to the extent practicable, ocean disposal at the San Francisco Deep Ocean Disposal Site (SFDODS) for other projects where practicable, and a continuation of unconfined in-Bay disposal at reduced levels for the remaining subset of dredging projects. ~~to regulate dredged material in San Francisco Bay. The goals of the LTMS Management Plan are to maintain in an economically and environmentally sound manner those channels necessary for navigation in San Francisco Bay and Estuary and eliminate unnecessary dredging activities, conduct dredged material disposal in the most environmentally sound manner, maximize the use of dredged materials as a resource, and maintain the cooperative permitting framework for dredging and disposal applications.~~
>
> ~~Since its implementation, has significantly reduced the volume of dredged material disposed of in the Bay in comparison to historical levels. Some in-Bay disposal is still allowed under the LTMS Management Plan, although most dredged material is currently disposed of at the San Francisco Deep Ocean Disposal Site (SFDODS) or at other beneficial reuse sites currently permitted within the San Francisco Bay area.~~
>
> The LTMS agencies established a 12-year transition period sectioned into four "step-down" periods to allow time for beneficial reuse sites to be developed, permitted, and made available to allow dredgers time to begin using the alternatives.[103a] The LTMS program is

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[103a] San Francisco Bay Conservation and Development Commission, Long Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region (LTMS) Program. Accessed at http://www.bcdc.ca.gov/dredging/ltms/ltms_program.shtml on September 13, 2011

> in its third step-down period, and the average annual in-Bay disposal volume target limit is 2.1 million cubic yards. At the end of the fourth step-down period in 2012, in-Bay disposal of dredged material will be managed at approximately 1.25 million cubic yards per year. The annual volume limit for disposal at the SFDODS is 4.8 million cubic yards. The annual volume limit for each permitted beneficial reuse site varies according to the constraints of the individual site and the permit conditions defining the quality of sediment acceptable for disposal at the site. Currently, there are limited options for beneficial reuse for dredged material from the AC34 project due to availability and capacity, logistics, environmental and sediment suitability requirements, and economic factors.
>
> As part of the required permitting and DMMO process for dredging and disposal of dredge material, the sustainability and location of all viable and permitted disposal options are assessed per regional and federal guidance. As part of this process, reuse sites such as the Montezuma Wetlands Restoration Site, Carneros River Ranch, and Cullinan Ranch as well as the SFDODS are considered. The ultimate disposal site allocations are dependent on the final sediment suitability determinations that the DMMO approves. If dredge material is determined to be unsuitable for any of the beneficial reuse sites or SFDODS, the material can be disposed of at a permitted upland landfill. The recommended disposal site options are reviewed and approved by the DMMO.

As discussed in Response HY-2, the text on EIR page 5.16-46, last paragraph, is revised as follows:

> All shipping operations that involve major marine vessels are subject to ~~T~~the Marine Invasive Species Act of 2003 (Public Resources Code Sections 71200 through 71271) which revised, ~~and~~ expanded, extended, and renamed the California Ballast Water Management for Control of Non-indigenous Species Act of 1999 (Assembly Bill 703). ~~Effective January 1, 2000, the Ballast Water Management for Control of Non-indigenous Species Act established a statewide program to prevent or reduce the introduction and spread of non-indigenous aquatic species into the state waters. The program is under the direction of~~ The Marine Invasive Species Act is administered by the California State Lands Commission through its Marine Invasive Species Program and applies to all domestic and foreign vessels over 300 gross registered tons~~ in consultation with other state and federal agencies~~. The act, as amended in subsequent years, has primarily focused on regulating the handling of ballast water from marine vessels arriving at California ports in order to prevent or minimize the introduction of non-native invasive species (NIS). Other requirements of the act are concerned with hull husbandry and the reduction of fouling and the spread of NIS from fouling organisms as well as data gathering to better understand NIS threats to state waters and marine communities.
>
> The ~~program~~ Act requires that all vessels carrying ballast water must either conduct a mid-ocean exchange of ballast water or retain all ballast water on board the vessel. The exchange or replacement of all water in tanks must occur with ocean waters located more than 200 nautical miles from land and at least 6,560 feet deep. Vessels must comply with "good housekeeping" practices, including the following: avoiding uptake or discharge in or near marine sanctuaries or reserves, minimizing or avoiding uptake in areas of known infestations

or pathogens; minimizing or avoiding uptake near sewage outfalls or near dredging operations, cleaning ballast tanks regularly to remove sediment, disposing of sediments properly, minimizing discharge amounts, and removing fouling organisms from hulls, pipes, and other areas. Vessel owners or operators must submit ballast water report forms to the California State Lands Commission and must maintain a Ballast Water Management Plan specific to each vessel.[104] Other requirements of the act are concerned with hull husbandry, reduction of fouling, and the spread of non-native invasive species from fouling organisms as well as data gathering to better understand the threat of non-native invasive species to state waters and marine communities. It should be noted that cruise ships do not typically discharge ballast water due to the relatively light load that passengers and stores represent as a proportion of the total load on these vessels.

Beginning 2010, certain vessels that carry ballast water must conduct ballast water treatment so that the ballast water discharged will contain:

a) No detectable living organisms that are greater than 50 micrometers in minimum dimension;

b) Less than 0.01 living organisms per milliliter that are less than 50 micrometers in minimum dimension and more than 10 micrometers in minimum dimension;

c) For living organisms that are less than 10 micrometers in minimum dimension:

    1) Less than 1,000 bacteria per 100 milliliter;

    2) Less than 10,000 viruses per 100 milliliter; and

    3) Concentrations of microbes that are less than:

        i. 126 colony forming units per 100 milliliters of Escherichia coli;

        ii. 33 colony forming units per 100 milliliters of Intestinal enterococci; and

        iii. 1 colony forming unit per 100 milliliters or 1 colony forming unit per gram of wet weight of zoologic samples of Toxicogenic Vibria cholera.

These performance standards apply on January 1, 2010, to vessels constructed on or after that date that have a ballast water capacity of less than or equal to 5,000 metric tons. They apply on January 1, 2012, to vessels constructed on or after that date that have a ballast water capacity of greater than 5,000 metric tons. Ships with larger ballast water tanks have later compliance dates. Beginning January 1, 2020, vessels subject to the Marine Invasive Species Act will be prohibited from discharging ballast water with any living organisms of any size.

As discussed in Response HY-12, the following text is added after the first incomplete sentence on EIR page 5.16-53:

sediment control and pollution prevention measures during construction. In the Port jurisdiction, the Stormwater Control Plan is subject to approval by the Port, SFPUC, and Planning Department as a condition of project approval to certify that the performance measures of the Stormwater Design Guidelines are met. The project would require a Stormwater Control Plan.

As explained in Response HY-2, the following text is added to the end of EIR page 5.16-56:

5.16.2.4 Cruise Industry Waste Management Practices and Procedures

The Cruise Lines International Association (CLIA), which most cruise lines belong to, also adopted a set of "Cruise Industry Waste Management Practices and Procedures" in 2001 incorporating legal and voluntary practices for waste minimization, waste reuse and recycling, and waste stream management on the part of the cruise ship industry. The standards were revised in 2006 and are designed to meet or exceed legal requirements, and acceptance of these standards is mandatory for membership in the CLIA. To address waste handling, the CLIA member lines have agreed that hazardous wastes and waste streams onboard cruise vessels will be identified and segregated for individual handling and management in accordance with applicable laws and regulations. They have further agreed that hazards wastes will not be discharged to the environment, nor mingled or mixed with other waste streams. The CLIA members have also agreed to meet or exceed the international requirements for removing oil from bilge and wastewater prior to discharge, eliminate (to the maximum extent possible) plastics and other garbage into the environment, and implement water management strategies to minimize the use of fresh water.

As discussed in Response HY-3, the last paragraph on EIR page 5.16-60 is revised as follows:

> As described in Chapter 3, Project Description, the project sponsor would implement standard construction specifications incorporating the use of barges moored in a position to capture and contain the debris generated during demolition and construction work. In the event that debris does reach the Bay, personnel in workboats within the work area would be required to immediately retrieve the debris for proper handling and disposal. Debris from demolition activities would be stored on land prior to disposal, and appropriate BMPs including those required by the Construction General Permit would be implemented to prevent the transport of dust and debris fragments to the Bay; these BMPs would include containment of waste piles and covering of the piles nightly as well as covering the piles under high wind conditions. These measures would be incorporated into the SWPPP as ~~a~~ BMPs for the protection of water quality, which would be subject to the approval of the RWQCB. ~~Additionally, the project construction would be required to comply with any BMPs set forth in the Section 404 Corps permit as well as a BCDC Major Permit.~~

As explained in Response HY-4, the third paragraph on EIR page 5.16-62 is revised as follows:

> As described in the Setting section (Section 5.16.1.5, Sediment Quality), sediments historically dredged from Piers 30-32 and Pier 27 under the Port's maintenance dredging program have been suitable for in-Bay disposal at the Alcatraz disposal site. Characterization of ~~S~~sediments ~~analysis~~ within all areas to be dredged is being conducted to determine their suitability at multiple disposal sites. The results would be reviewed and approved by the DMMO and participating LTMS agencies, which would ensure that disposal of the sediments is consistent with the LTMS goals of reducing the volume of in-Bay sediment disposal. ~~of the proposed sediments for unconfined aquatic disposal at the Alcatraz disposal site (SF-11). Disposal could also occur at either the SF-DODS or upland~~

> ~~disposal sites. The SF-DODS is located approximately 50 miles offshore of San Francisco in depths of 8,200 to 9,840 feet (2,500 to 3,000 meters) and was established in 1994 to provide an environmentally superior alternative to disposal in San Francisco Bay~~.
>
> The project sponsor is in the process of developing all environmental documentation to obtain all necessary permits and approvals from pertinent regulatory agencies to dredge and dispose of sediments, including a water quality certification from the RWQCB. The permitting agencies include the United States Army Corps of Engineers (Corps), United States Environmental Protection Agency (U.S. EPA), Regional Water Quality Control Board (RWQCB), Bay Conservation and Development Commission (BCDC), State Lands Commission (SLC), National Marine Fisheries Service (NMFS), and California Department of Fish and Game (CDFG). ~~would be required to obtain a new Section 404 permits from the Corps and a RWQCB water quality certification for the construction dredging. Disposal at the SF-DODS would be subject to the requirements of the Section 404 permit and RWQCB water quality certification, and upland disposal of sediments must be conducted in accordance with waste discharge requirements issued to the designated disposal site~~.

City staff has revised Section 5.16, page 5.16-66 of the EIR, first full paragraph, as follows to incorporate project updates:

> As described in more detail in Chapter 3, Project Description, the AC34 events are expected to attract an estimated 880~~2,280~~ spectator boats to San Francisco Bay on an average peak day in 2013, including an estimated 800~~2,200~~ recreational boats.

As discussed in Response HY-7, the following revision is made to the first incomplete paragraph on EIR page 5.16-67 to address the provision of educational signs:

> employment of clean boating habits. This measure would also require the project sponsor to provide educational signs posted at waterway entrance points such as boat launch ramps, marinas, yacht clubs, and ports in partnership with appropriate agencies, and where cooperation from boater facilities can be achieved.

City staff has revised Section 5.16, page 5.16-67 of the EIR, first full paragraph, first sentence as follows to incorporate project updates:

> As described above and in Chapter 3, Project Description, the AC34 events are expected to attract an estimated 880~~2,280~~ spectator boats to San Francisco Bay on an average peak day in 2013.

As discussed in Responses HY-2, HY-7, and HY-9d, the fourth paragraph on EIR page 5.16-67 is revised as follows:

> As described in the Setting above, the Central Bay has been identified as an impaired water body under Section 303(d) of the Clean Water Act, and among the listed pollutants causing the impairment designation is "exotic species," also referred to as non-native or invasive species. Invasive species may be introduced to the Bay via a number of avenues including

> discharges of ballast water as well as from anchor chain lockers, anchors, anchor chains, anchor lines, ship bilges, drains, and through-hull connections; this impact is discussed in Section 5.14.4, Marine Biological Resources. To protect waters, such as the Bay, from invasive species from visiting vessel ballast, the ~~Ballast Water Management Act~~ Marine Invasive Species Act requires that all vessels carrying ballast water either conduct a mid-ocean exchange of ballast water or retain all ballast water on board the vessel to prevent or reduce the introduction and spread of non-indigenous aquatic species into the state waters. Regardless, the project sponsor takes the potential for the introduction of invasive species seriously and has established the AC34 Invasive Species Task Force to address the issue of invasive species as it relates to the AC34 events. In addition to the project sponsor, the task force is composed of expert members from the RWQCB, CDFG, the San Francisco Estuary Project, the California Coastal Commission, the State Lands Commission, the United States Coast Guard, and California Department of Boating and Waterways, and the Smithsonian Institute.
>
> As described in Section 5.14.4, Marine Biological Resources, **Mitigation Measure M-BI-12** (Visiting Mariners Information) would reduce the risk of ~~from~~ visiting ships ~~of~~ introducing non-native species to the Bay or spreading non-native species from the Bay from ballast water, hull fouling, anchor chain lockers, anchors, anchor chain, anchor line, ship bilges, drains, through-hull connections, and other locations on visiting boats. Outreach materials prepared in accordance with this measure would include best management practice guidelines developed by the AC34 Invasive Species Task Force, and would be disseminated to boaters according to a dissemination plan prepared under this mitigation measure. Furthermore, the potential for spread or accelerating the spread of already introduced invasive species during proposed in-water construction activities would be reduced to *less than significant* with implementation of **Mitigation Measure M-BI-16** (Invasive Marine Species Control ~~at Port Facilities~~). Please see Section, 5.14.4, Marine Biological Resources, for further description of this potential impact.

As explained in Response HY-9c, the second paragraph on EIR page 5.16-68 is revised as follows:

> Regarding sewage discharges, in accordance with Annex IV of the MARPOL convention and Section 312 of the CWA, recreational vessels with installed toilet facilities must have an operable MSD or holding tank on board and can only discharge the sewage on shore into a local sewage treatment facility. Larger vessels equipped with Type I and II MSDs are prohibited from discharging untreated sewage anywhere within the 3-mile territorial limit (including lakes, rivers, reservoirs or coastal water within 3 miles of shore) or even treated sewage into any designated No Discharge Zone.

As discussed in Response HY-10b, the fourth and fifth paragraphs on EIR page 5.16-68 are revised as follows to indicate that the General Industrial Stormwater Permit would no longer apply to temporary berthing locations:

> ~~In addition to the above regulatory requirements, the project sponsor would be required to obtain coverage under the Industrial General Stormwater Permit described in Section~~

> ~~5.16.2.2, State Regulations, for temporary berthing locations constructed for AC34 events. In accordance with this permit, the project sponsor would be required to prepare and implement a SWPPP identifying sources of pollutants and the means to manage these sources.~~
>
> Despite regulations regarding operations of vessels within U.S. waters~~,~~ and preparation of a Zero Waste Plan (also known as Waste Management Plan) as part of the AC34 events, ~~and compliance with the requirements of the Industrial Stormwater Permit,~~ impacts on water quality as a result of the increased potential for ballast water discharges, bilge water discharges, oily water discharges and hazardous materials spills, sewage discharges, and littering in the Bay would be *potentially significant* because some boaters, including international visiting vessels, may not be familiar with U.S. regulations and there would also be an increased burden of enforcement due to the increased number of boats during the AC34 events.

As discussed in Response HY-7, the following revision is made to the last paragraph on page 5.16-68:

> Implementation of **Mitigation Measure M-BI-12** (Visiting Mariners Information) would require the project sponsor to educate boaters and marinas about environmentally sound boating practices and access to environmental services to ensure employment of clean boating habits. This measure would also require the project sponsor to provide educational signs posted at waterway entrance points such as boat launch ramps, marinas, yacht clubs, and ports in partnership with appropriate agencies, and where cooperation with boater facilities can be achieved.

City staff has revised the second paragraph on EIR page 5.16-69 as follows to incorporate additional information from the California Ocean Protection Council report titled "Plastic Debris in the California Marine Ecosystem: A Summary of Current Research, Solution Efforts and Data Gaps" released in September, 2011:

> **Littering**
>
> The increased public use of the Bay by boaters and the Bay shoreline by spectators and event staff during the AC34 2012 and 2013 events would increase the potential for littering, particularly at the America's Cup Village and spectator venues where crowds would be congregated and hospitality services (food, beverage, and merchandise sales) would be offered. Similarly, littering could also occur from boats and at the secondary viewing areas. Due to the proximity of these venues to the Bay, litter could be directly discarded to the Bay, carried to the Bay via wind or stormwater runoff, or even carried by sea gulls. Many kinds of materials likely to be included in refuse are harmful to aquatic life, including plastic debris that could accumulate in the marine environment and concentrate or transport persistent organic pollutants already in the water such as polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), and dichlorodiphenyl trichloroethane (DDTs); release harmful plastic additives to the water column; or provide a transport mechanism for invasive species. In addition, marine animals could become

> entangled in the debris, causing physical harm. For example, plastic "six pack" holders are known to seriously harm various aquatic organisms, including special status marine birds and mammals, when they become entangled in the plastic openings. Litter generated at the proposed project site has the potential to increase the risk of feeding and choking hazards for brown pelicans, double crested cormorants, and harbor seals. In the marine environment, salt and sun can also break down the trash, especially plastic bottles, into ever smaller, eventually microscopic components, increasing nutrient loading, reducing available dissolved oxygen, and potentially creating suffocating films on the water surface that can adversely affect quality. ~~Additionally, many components and trash, especially degraded plastics, can be toxic to aquatic wildlife.~~

As discussed in Response HY-12, the following edits are made to the first sentence following the bulleted list on EIR page 5.16-72:

> The MMDP shall be submitted to the RWQCB for review and approval prior to beginning construction.

As discussed in Response HY-10b, the last two paragraphs on EIR page 5.16-72 (continuing on to EIR page 5.16-73) are revised as follows:

> With the exception of the proposed team bases and limited maintenance of support boats that could occur at Pier 19, none of the activities planned at the AC34 venues would include the use of hazardous materials or other potential stormwater pollutants that could degrade water quality during either of the AC34 events. However, the team bases that would be constructed at Pier 80 and at Piers 30-32 and limited boat maintenance that would occur at Pier 19 would involve boat maintenance activities and the use of hazardous materials that could be sources of stormwater pollutants, as discussed below.
>
> ~~Pier 80 and Piers 30-32 would be used as a team base.~~ As discussed in Section 5.16.1.1, Surface Water Hydrology and Stormwater Drainage, Pier 80 has a separate stormwater drainage system that is comprised of four separate drainage areas, and a small portion of this pier drains to the City's combined sewer system. Pier 19 and Piers 30-32 currently drain directly to the Bay. Boat maintenance activities, the outside storage of heavy equipment, and the use of hazardous materials associated with the team base and boat maintenance activities could be potential sources of stormwater pollutants discharged to these storm sewer systems. However, the project sponsor would implement practices at Pier 19, at the team bases at both locations, and at the fabrication and assembly facilities at Pier 80 to promote recycling of materials and use of environmentally friendly products and procedures, such as limiting the use of diesel powered equipment, using equipment powered with electricity or alternative fuels rather than diesel, and using environmentally friendly alternatives to industrial solvents and other maintenance chemicals. Further, the AC-45 and AC-72 sailboats and their assemblage work would not involve the use of hazardous material such as gasoline, diesel, lube oil, or any petroleum products. Large areas of the boats would not be spray painted at the team bases. Minor touch-up painting would be done within a work area tent and the 1- or 5-gallon pails of paint would be stored

> in team containers at each team base. In addition, the team base activities at Pier 80 and Piers 30-32 would take place in the summer months when rainfall does not typically occur in the Bay Area. During the winter months of 2012 to 2013, some boats may be stored under tents at the team bases. However, no boat assembly or repair work would take place during this time, and all tools, repair parts and paint materials would be securely stored inside the team containers or the team support modules, which would be covered.

City staff has added the following paragraph after the first partial paragraph on EIR page 5.16-73 to provide information regarding boat washing activities at the team bases:

> During the AC34 events, boat washing would take place on Pier 80 and Piers 30-32. Each site would be provided with two common wash areas, each approximately 80 feet in diameter with rubber or plastic containment dikes. The wash water, estimated at about 200 gallons per wash, would be fully contained within the dikes and drained to a low point or a sump. The wash water would be disposed of using a truck mounted package treatment unit that treats and stores the wash water for reuse or a standby suction truck that vacuums the wash water into a tank for offsite disposal at a designated wastewater treatment plant. Either disposal method would completely contain and remove the wash water without discharging the water to the Bay or the storm or sanitary sewer system.

As discussed in Responses HY-10a and HY-12, the third paragraph on EIR page 5.16-73 is revised as follows:

> ~~In addition, the AC34 events would be conducted during the dry season when no stormwater runoff would be generated.~~ Further, in accordance with the Stormwater Design Guidelines discussed in Section 5.16.2.3, Local Regulations, the project sponsor would be required to prepare and implement a Stormwater Control Plan identifying how the stormwater discharges would be treated to ~~comply with~~ meet the performance measures of the San Francisco Stormwater Design Guidelines discussed in Section 5.16.2.3, Local Regulations (which require capture and treatment of [1] the flow of stormwater runoff resulting from a rain event equal to at least 0.2 inch per hour of intensity, or [2] 80 percent or more of the annual stormwater runoff volume, determined from design rainfall capture curves for San Francisco)~~Stormwater Management Ordinance~~, and specifying BMPs for the treatment of stormwater discharges. Such BMPs may include features such as rain gardens in the streetscape, aboveground planters for biofiltration, or separators or media filters to remove stormwater pollutants. The Stormwater Control Plan would be subject to approval by the Port of San Francisco, the San Francisco Public Utilities Commission (SFPUC), and the San Francisco Planning Department as a condition of project approval to certify that the performance measures of the Stormwater Design Guidelines are met.

As described in Response HY-10b, the fourth paragraph on EIR page 5.16-73 is revised as follows:

> The project sponsor would also be required to obtain coverage under the Industrial General Stormwater Permit described in Section 5.16.2.2, State Regulations, depending on the specific activities conducted at the team bases and boat maintenance facilities at Pier 19. In

> accordance with this permit, the project sponsor would also be required to prepare and implement a SWPPP identifying sources of pollutants and the means to manage these sources to reduce stormwater pollution.

As explained in Response HY-10b, the last paragraph on EIR page 5.16-73 (continuing on to EIR page 5.16-74) is revised as follows:

> Incorporation of safe handling methods planned as part of the project, compliance with the San Francisco Health Code, and implementation of control measures required for compliance with the San Francisco Stormwater Management Ordinance (as specified in the Stormwater Design Guidelines), and compliance with the Industrial General Stormwater Permit, impacts related to additional sources of stormwater pollutants would be *less than significant*~~, even if the team base were to remain in place between the AC34 2012 and 2013 events~~.

As explained in Response HY-10a, the impact analysis for Impact HY-6 on EIR page 5.16-81 is revised as follows:

> **Impact HY-6: Operation of the Cruise Terminal and Northeast Wharf Plaza would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. (Less than Significant)**
>
> There would be no impacts associated with changes in the volume of stormwater runoff from Pier 27 as a result of construction of the James R. Herman Cruise Terminal or the Northeast Wharf Plaza. Pier 27 is currently 100-percent paved and drains directly to the Bay either by sheet flow or via surface drains. The cruise terminal and associated facilities would also be fully paved. Therefore, there would not be a measurable change in the volume of stormwater runoff as a result of construction of the cruise terminal. Further as described in Chapter 3, Project Description, on page 3-104, the design of the cruise terminal includes a rainwater harvesting system using siphonic roof drains to direct rainfall to a series of storage tanks in the cruise terminal. The reclaimed water would be distributed via reclaimed water distribution lines to building reclaimed water fixtures, landscaping, and other potential uses. ~~Further~~ In addition, the Northeast Wharf Plaza would be constructed of natural turf underlain by a soil bed and base drain mat, which would slightly reduce the volume of stormwater runoff at the Northeast Wharf Plaza site, and other areas of the site would use a blended approach that could include drainage with media filters, planter filters, and some vegetated swales.
>
> All stormwater improvements would meet or exceed the stormwater performance measures of the San Francisco Stormwater Design Guidelines discussed in Section 5.16.2.3, Local Regulations, which require capture and treatment of (1) the flow of stormwater runoff resulting from a rain event equal to at least 0.2 inch per hour of intensity, or (2) 80 percent or more of the annual stormwater runoff volume, determined from design rainfall capture curves for San Francisco. The rainwater harvesting system would also put captured rainwater to beneficial reuse and reduce stormwater flows from the site. These proposed improvements would only result in negligible contributions to pollutants in stormwater

> runoff, because no boat maintenance or other activities that involve the use of hazardous materials would be conducted at Pier 27. ~~In addition, stormwater runoff from the proposed improvements would be discharged to the new stormwater management features (including storm drains, collection systems, and conveyance systems, described in Chapter 3, Project Description.~~
>
> In accordance with the Stormwater Design Guidelines ~~discussed in Section 5.16.2.3, Local Regulations~~, the project sponsor would be required to prepare and implement a Stormwater Control Plan describing the rainwater harvesting system and other stormwater improvements, describing the areal extent of new and replaced impervious surfaces, identifying opportunities and constraints for of various post-construction best management practices (including green infrastructure solutions), and providing stormwater sizing calculations in compliance ~~with identifying how the stormwater discharges would be treated to comply~~ with the San Francisco Stormwater Management Ordinance, and specifying BMPs for the treatment of stormwater discharges. With implementation of water quality control measures required for compliance with the San Francisco Stormwater Management Ordinance (as specified in the Stormwater Design Guidelines), impacts related to additional sources of stormwater pollutants would be *less than significant*.

City staff has revised EIR page 5.16-84 following the last bullet as follows to incorporate project updates:

- *Pier ½*. Pier ½ is 24,000 square-feet in area and physically connected to Section 7 of the bulkhead wharf. The Port "red-tagged" and vacated the pier and secured it with fencing in 2008 due to structural deficiencies in the substructure and supporting piles. Fill removal at this location would result in the removal of the entire 24,000 square-foot pier deck and substructure.

As discussed in Response HY-4, the second paragraph on EIR page 5.16-86 is revised as follows:

> Construction and operation of marinas in the Brannan Street Wharf (Piers 32-36) Open Water Basin and Rincon Point (Piers 14-22½) Open Water Basin would be subject to the Nonpoint Source Pollutant Control Program, discussed in Section 5.16.2.2, State Regulations, and implemented by the SWRCB and the California Coastal Commission. This program includes required water quality control measures for assessment, siting, and design of marinas to reduce water quality impacts from these activities. Through its permit process, the BCDC is vested with the authority to implement management measures applicable to marinas and could specify nonpoint source pollution control measures in its ~~Major P~~permit for the project. As part of its regional responsibility for protecting water quality, the RWQCB may also review BCDC's ~~Major P~~permit and conditions for the project.
>
> The marinas may also require maintenance dredging to maintain an adequate depth for berthed vessels. Compliance with permitting and DMMO requirements, including a water quality certification from the RWQCB and BCDC Dredging Policy 2, would ensure that water quality impacts associated with this dredging are less than significant. As part of the permitting process, appropriate disposal sites for the sediments would be identified and

> the most appropriate disposal site would be selected based on the sediment quality. Options for beneficial reuse or disposal at the SFDODS disposal site would be prioritized over in-Bay disposal, consistent with the goals of the LTMS.
>
> With implementation of the specified management measures, subject to review and approval by the BCDC, and permitting requirements for dredging, under a conceptual-level of analysis, water quality impacts related to construction and operation of the marinas would be *less than significant.*

As discussed in Response HY-15, the first paragraph on EIR page 5.16-87 is revised as follows:

> …considerable because water quality impacts related to these activities would be temporary and the project sponsor would implement water quality control measures required for compliance with existing regulations and with implementation of **Mitigation Measure M-HY-1** (Water Quality Best Management Practices), which would ensure that adverse water quality effects would not result from AC34 construction activities, as discussed in Impact HY-1.

As explained in Response HY-4, the following paragraph is added following the second paragraph on EIR page 5.16-87:

> The project would require dredging at the Brannan Street Wharf (Piers 32-36) Open Water Basin, in the Piers 28-30 water area, and at the Rincon Point (Piers 14-22½) Open Water Basin to accommodate sufficient depth for berthing AC34 boats (sponsor and/or spectator boats). Dredging may also be required to accommodate temporary berthing in other water basins along the waterfront and for maintenance of marinas that could be constructed and operated under the long-term development projects. Other projects listed in Table 5.1-1 that are located along the waterfront could also potentially involve dredging. If these projects disposed of dredged material at in-Bay disposal sites, they could cumulatively interfere with the LTMS strategy of reducing the annual volume of in-Bay disposal of sediments to 1.25 million cubic yards, a potentially significant impact. However, as discussed in Impact HY-1, as part of the DMMO permitting process, sediments dredged under the AC34 project are not proposed to be disposed of in the Bay. Because of this, the project's contribution to this cumulative impact would not be cumulatively considerable. Further, other dredging projects would be subject to the same permitting process that would prioritize beneficial reuse and disposal at the SFDODS site over in-Bay disposal.

As stated in Response HY-15, and to incorporate City staff revisions, EIR page 5.16-86, Impact C-HY, is edited as follows to clarify the cumulative impact analysis:

> **Impact C-HY: The projects, in combination with other past, present, and reasonably foreseeable future projects, could result in significant adverse cumulative hydrology or water quality impacts. (Both Projects: Less than Significant with Mitigation)**

The geographic scope of potential water quality and hydrology cumulative impacts is Central San Francisco Bay, which is identified as an impaired water body on the basis of several parameters.

America's Cup Facilities and Operations

The proposed project could result in adverse water quality effects related to construction activities above and adjacent to the Bay. Other projects listed in Table 5.1-1 such as the Pier 36/Brannan Street Wharf project and Pier 15 to 17 Exploratorium Relocation Project could also involve similar activities that could affect water quality in San Francisco Bay, resulting in a potential cumulative impact. However, the project's contribution to this cumulative impact would not be cumulatively considerable with implementation of water quality measures required for compliance with existing regulations, which would ensure that adverse water quality effects would not result from construction activities for the cruise terminal, as discussed in Impact HY-5.

City staff has revised, EIR page 5.16-87 as follows to clarify the cumulative impact analysis:

James R. Herman Cruise Terminal and Northeast Wharf Plaza

The proposed project could result in adverse water quality effects related to construction activities above and adjacent to the Bay. Other projects listed in Table 5.1-1 such as the Pier 36/Brannan Street Wharf project and Pier 15 to 17 Exploratorium Relocation Project could also involve similar activities that could affect water quality in San Francisco Bay, resulting in a potential cumulative impact. However, the project's contribution to this cumulative impact would not be cumulatively considerable with implementation of water quality measures required for compliance with existing regulations and with implementation of **Mitigation Measure M-HY-1** (Water Quality Best Management Practices) as discussed in Impact HY-5.

The project would create a negligible increase to year-round sanitary sewage flows to the combined sewer system, and therefore would not make a cumulatively considerable contribution to combined sewer overflows.

The project would not result in adverse effects related to stormwater drainage, flooding, tsunami inundation, or inundation as a result of climate change-induced sea level rise, and would therefore not contribute to cumulative impacts related to these topics.

Mitigation of Cumulative Impacts

As described above, implementation of the following mitigation measures under the applicable project would reduce the respective contribution to cumulative impacts on water quality to less than significant for both the AC34 and Cruise Terminal projects.

AC 34 Project Mitigation: ~~See~~ **Mitigation Measure M-HY-1** (Water Quality Best Management Practices).

Cruise Terminal Project Mitigation: Mitigation Measure M-HY-1 (Water Quality Best Management Practices)

Section 5.17 Hazards and Hazardous Materials

As discussed in response HZ-1c, the last paragraph on EIR page 5.17-5, continuing on to page 5.17-6, is revised as follows:

> Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. The BAAQMD is vested by the California legislature with authority to regulate airborne pollutants, including asbestos~~,~~. BAAQMD regulations pertaining to abatement of asbestos-containing materials are specified in Regulation 11, Hazardous Pollutants, Rule 2, Asbestos Demolition, Renovation and Manufacture. In accordance with this regulation, the BAAQMD ~~through both inspection and law enforcement, and~~ is to be notified 10 days in advance of any proposed demolition or abatement work. Notification includes the names and addresses of operations and persons responsible; description and location of the structure to be demolished or altered, including size, age, and prior use, and the approximate amount of friable asbestos; scheduled starting and completion dates of demolition or abatement; nature of planned work and methods to be employed; procedures to be employed to meet BAAQMD requirements; and the name and location of the waste disposal site to be used. In accordance with this regulation, a survey must be conducted to identify asbestos-containing materials prior to demolition. Containment must be provided during work that disturbs asbestos-containing materials, and there must be no visible emissions to the outside air from demolition operations that involve asbestos-containing materials. The contractor must use methods specified in the regulations for control of emissions, such as wetting of exposed asbestos-containing materials; use of a HEPA exhaust, ventilation, and control system; or removal in an entirely contained chute. In addition asbestos-containing materials must be removed prior to demolition and the work site must be cleaned of asbestos-containing materials. The BAAQMD randomly inspects asbestos removal operations~~. In addition, the BAAQMD~~ and will inspect any removal operation when a complaint has been received.

As discussed in Response HZ-2, the beginning of the fourth paragraph on EIR page 5.17-6 is revised as follows:

> Treated wood, including creosote-treated piles and structures, contains hazardous chemicals at elevated levels and can be characterized as a hazardous waste under California regulations.[8] However, the DTSC has developed alternative management standards ~~that allow for disposal of~~ for treated wood ~~as a nonhazardous~~ waste~~. These~~

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[8] California Department of Toxic Substances Control, *Requirements for Generators of Treated Wood Waste (TWW, Fact Sheet,* December 2008.

> ~~standards~~, contained in Title 22 of the CCR, Division 4.5, Chapter 34, that simplify and facilitate the safe and economical disposal of treated wood waste.

As discussed in Responses HZ-1a and HZ-1d, the second paragraph on EIR page 5.17-15 is revised as follows:

> However, construction work at the team bases at Piers 30-32 and Pier 80 and the America's Cup Village at Piers 27-29 in 2013) would be conducted in areas that are bayward of the historic high tide line. If construction at any of these sites disturbed 50 cubic yards or more of soil, the project sponsor would be required to implement Article 22A of the San Francisco Health Code. In accordance with this article, the project sponsor would prepare a site history report, conduct soils testing, prepare a soils analysis report and if appropriate, prepare a Site Mitigation Plan and certification report. If the presence of hazardous materials were indicated, a site health and safety plan would also be required, and an application for assignment of a regulatory oversight agency would be submitted to the DTSC or RWQCB, if appropriate. The soil analysis report would be submitted to the DPH and other involved agencies including the DTSC and RWQCB, and if required on the basis of the soil analysis report, a site mitigation plan would be prepared to (1) assess potential environmental and health and safety risks (including a health risk analysis if necessary); (2) recommend cleanup levels and mitigation measures, if any are necessary, that would be protective of workers and visitors to the property; (3) recommend measures to mitigate the risks identified; (4) identify appropriate waste disposal and handling requirements; and (5) present criteria for onsite reuse of soil. If required, the recommended measures would be completed during construction. Upon completion, a certification report would be required stating that all mitigation measures recommended in the site mitigation report have been completed and that completion of the mitigation measures has been verified through follow-up soil sampling and analysis, if required. Further, the DPH could require implementation of these same measures for other sites that are not located bayward of the high tide line if contamination is suspected.

As discussed in Response HZ-1c, the next-to-last paragraph on EIR page 5.17-16 is revised as follows:

> As discussed in Section 5.17.2, Regulatory Framework, there is a well-established regulatory framework for the abatement of asbestos-containing materials and lead-based paint. Abatement of asbestos-containing materials~~,~~ must be conducted in accordance with BAAQMD Regulation 11, Hazardous Pollutants, Rule 2, Asbestos Demolition, Renovation and Manufacture, which requires that a survey be conducted to identify asbestos-containing materials prior to demolition. In addition, containment must be provided during work that disturbs asbestos-containing materials, and there must be no visible emissions to the outside air from demolition operations that involve asbestos-containing materials. The contractor must use methods specified in the regulations for control of emissions, such as wetting of exposed asbestos-containing materials; use of a HEPA exhaust, ventilation, and control system; or removal in an entirely contained chute. In addition asbestos-containing materials must be removed prior to demolition and the work site must be cleaned of asbestos-

> containing materials. ~~is addressed in Section 19827.5 of the California Health and Safety Code, which requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. The BAAQMD is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and is to be notified 10 days in advance of any proposed demolition or abatement work.~~ Further, asbestos abatement contractors must follow state regulations contained in 8 CCR 1529 and 8 CCR 341.6 through 341.14 where there is asbestos-related work involving 100 square feet or more of asbestos-containing materials.

As discussed in Responses HZ-1a and HZ-1d, the third paragraph on EIR page 5.17-24 is revised as follows:

> In general, impacts related to a release of hazardous materials during construction (Impact HZ-1) would be less than significant with implementation of the requirements of the Construction General Stormwater Permit issued by the RWQCB, and impacts related to the use of hazardous materials during operation would be *less than significant* with implementation of safety measures in compliance with Articles 21, 21A, and 22 of the San Francisco Health Code and preparation of an Operations Plan in accordance with Port of San Francisco requirements. Additionally, if more than 50 cubic yards of soil were disturbed for construction of the long-term development projects, preparation of a site history report, soils testing, preparation of a soils analysis report and if appropriate, preparation of a Site Mitigation Plan (including a health risk analysis if necessary) and certification report in compliance with Article 22A of the San Francisco Health Code (and submittal of an application for assignment of a regulatory oversight agency to the DTSC or RWQCB, if appropriate) would ensure that impacts related to exposure to hazardous materials in soil would be less than significant, as described above under Impact HZ-2. Additionally, if the approved the Site Mitigation Plan includes leaving hazardous materials in soil or the groundwater with containment measures such as landscaping or a cap to prevent exposure to hazardous materials, the project sponsor would ensure the preparation of a risk management plan, health and safety plan, and possibly a cap maintenance plan in accordance with DPH requirements. These plans would specify how unsafe exposure to hazardous materials left in place would be prevented, as well as safe procedures for handling hazardous materials should site disturbance be required. The DPH could require a deed notice, and the requirements of these plans would transfer to the new property owners in the event that the property was sold.

As discussed in Response HZ-5, and to incorporate revisions from City staff, the EIR on page 5.17-26, Impact C-HZ, is revised as follows to clarify the cumulative impact analysis:

> **Impact C-HZ: The projects, in combination with other past, present, and reasonably foreseeable future projects, could result in significant adverse cumulative hazards and hazardous materials impacts. (Both Projects: Less than Significant with Mitigation)**

Impacts from hazards are generally site specific, and do not generally result in cumulative impacts unless the potentially cumulative projects are in close proximity to one another. However, the AC34 events include the use of hazardous materials adjacent to and above San Francisco Bay and a release of hazardous materials could affect water quality in the Bay. Therefore, the geographic scope of potential hazards and hazardous materials includes San Francisco Bay and adjoining areas~~is limited to the project area and immediate vicinity~~.

America's Cup Facilities and Operations and the Cruise Terminal Project

The AC34 events and the cruise terminal and northeast wharf plaza and many of the projects listed in Table 5.1-1 and other Bay area projects could involve some uses of hazardous materials, resulting in a potentially significant cumulative impact. However, the proposed ~~project's~~ projects' (AC34 and the cruise terminal) impacts related to the routine transport, use, or disposal of hazardous materials would be less than significant with implementation of measures in compliance with existing regulations, including Articles 21, 21A, and 22 of the San Francisco Health Code and the proposed ~~project's~~ projects' contribution to this cumulative impact would not be cumulatively considerable with implementation of measures in compliance these regulations (see Impact HZ-1). Further, the uses of hazardous materials as part of the projects listed in Table 5.1-1 and other Bay Area projects would be subject to the same or similar regulatory requirements.

Limited, if any, soil disturbance would be required for the proposed AC34 project, and therefore the project would not likely result in the disturbance of contaminated soil during construction (see Impact HZ-2). While other projects listed in Table 5.1-1 and other Bay Area projects could encounter hazardous materials in the soil, resulting in a potentially significant impact, the proposed project's contribution to this impact would not be cumulatively considerable (i.e., would be less than significant) with implementation of the requirements of Article 22A of the San Francisco Health Code.

The proposed projects would result in the demolition or renovation of existing buildings that could include hazardous building materials and the removal of creosote-treated piles and structures. ~~Based on the age of many buildings throughout much of the city, m~~Many of the projects listed in Table 5.1-1 and other Bay area projects could also require demolition or renovation of buildings that include hazardous building materials or creosote-treated piles, resulting in a potentially significant cumulative impact. However, as discussed above, the proposed projects would implement measures to comply with existing regulations for abatement of asbestos-containing materials and lead-based paint as well as existing regulations for management and treatment of creosote-treated piles and structures. The project sponsor would also implement **Mitigation Measure M-HZ-3** (Removal of Hazardous Building Materials) which requires a survey for other hazardous building materials as well as removal and disposal of these materials in accordance with applicable laws. With implementation of these regulatory requirements and **Mitigation Measure M-HZ-3**, the proposed ~~project's~~ projects' contribution to this impact would not be cumulatively considerable (i.e., would be less than significant).

Mitigation of Cumulative Impacts

As described above, implementation of the following mitigation measure under the applicable project would reduce the respective contribution to cumulative impacts on hazardous materials to less than significant for both the AC34 and Cruise Terminal projects.

AC Project Mitigation: ~~See~~ **Mitigation Measure M-HZ-3** (Removal of Hazardous Building Materials)

Cruise Terminal Project Mitigation: Mitigation Measure M-HZ-3 (Removal of Hazardous Building Materials)

Section 5.18 Mineral and Energy Resources

City staff has revised EIR pages 5.18-22 to 5.18-23, Impact C-ME, as follows to clarify the cumulative impact analysis:

Impact C-ME: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts on mineral or energy resources. (Both Projects: Less than Significant)

Section 5.19 Agriculture and Forest Resources

City staff has revised EIR page 5.19-4, Impact C-AG, as follows to clarify the cumulative impact analysis:

Impact C-AG: The projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts on agricultural or forest resources. (Both Projects: No Impact)

The proposed projects would have no impact on agricultural or forest resources, nor would other proposed cumulative projects in the vicinity. Therefore, the projects would not contribute to cumulative impacts on agricultural or forest resources.

Chapter 6. Other CEQA Issues

(No revisions to this chapter.)

Chapter 7. Alternatives

City staff has revised EIR page 7-1, with the new paragraph as follows to be inserted after the first paragraph to update the alternatives analysis:

Subsequent to the publication of the Draft EIR, the CEQA alternatives analysis in Chapter 7 of the Draft EIR was augmented with the inclusion of the Reduced Intensity AC34 and Long-Term Development Sub-Alternative to reflect the planning and development processes that was conducted for the AC34 project. Please refer to Chapter 11 of the Final EIR for the description and analysis of this sub-alternative.

As discussed in Response TR-2c, the EIR text on page 7-11, first paragraph of the second bullet under Transportation and Circulation, is revised as follows:

> Significant and unavoidable level of service impacts at 18 signalized and unsignalized intersections plus other nearby intersections in the project area during AC34 2013 events during either weekday or Saturday midday conditions (including Embarcadero/Beach, Embarcadero/Broadway, Embarcadero/Howard, Embarcadero/Folsom, Embarcadero/Harrison, Embarcadero/Bryant, Fremont/Folsom, King/Third, King/Fourth, Lombard/Divisadero, Lombard/Fillmore, Bay/Laguna, Bay/Van Ness, Bush/Van Ness, Pine/Van Ness, Lombard/Van Ness, Lincoln/25th, Lombard/Lyon).

City staff has revised EIR page 7-52, Table 7-4, as shown on the following page, to correct editorial errors.

Chapter 8. EIR Authors and Consultants

City staff has added the following text on page 8-1:

San Francisco Planning Department
Environmental Planning
1650 Mission Street, Suite 400
San Francisco, CA 94103

- Environmental Review Officer: Bill Wycko
- Senior Environmental Review Coordinator: Joy Navarrete
- Environmental Review Coordinator: Chris Kern
- Environmental Planner: Chelsea Fordham
- Senior Transportation Planner: Viktoriya Wise, AICP, LEED AP
- Transportation Planner: Monica Pereira
- Transportation Planner: Greg Riessen
- Transportation Planner: Heidi Kline
- Preservation Technical Specialist: Rich Sucre
- Air Quality Specialist: Jessica Range
- Archeologist: Randall Dean
- Intern: Laura Lynch

City staff has added the following text to the bottom of EIR page 8-2:

> Cover photo credit: Paul Curfman (top photo), Gilles Martin-Raget (bottom photo)

Environmental Resource	Proposed Project	AC34 No Project Alternative	AC34 Open Ocean Alternative	Reduced Intensity AC34 and Long-Term Development Alternative	Reduced Spectator Berthing Alternative
Land Use	• Significant and unavoidable impacts associated with long-term development of marinas at the Rincon Point and Brannan Street Wharf Open Water Basins which would conflict with the intended long-term ecological and public benefits of these open water basins under the adopted BCDC Special Area Plan policies for these areas	No impacts	Same as Proposed Project	~~Similar to Proposed Project~~ There would be no impact associated with long-term development of marinas at the Rincon Point and Brannan Street Wharf Open Water Basins because no marinas are proposed there.	Significant and unavoidable impact~~s~~ associated with long-term development of marina~~s~~ at the Brannan Street Wharf Open Water Basin~~s~~ which would conflict with the intended long-term ecological and public benefits of these open water basins under the adopted BCDC Special Area Plan policies for these areas. There would be no impact associated with long-term development of a marina at the Rincon Point Open Water Basin because no marina is proposed there.
Cultural and Paleontological Resources	• Potentially significant and unavoidable impacts associated with long-term development at Piers 30-32 due to the unknown effect on the Embarcadero Historic District • Potentially significant impacts on historic resources due to proposed repairs and alteration to the bulkhead wharf and substructure at historic piers could be mitigated through prior approval of designs that ensure compliance with the Secretary's Standards • Potentially significant impacts on contributing resources to the Embarcadero Historic District (bulkhead wharf section 10, Red's Java House, and Pier 28) due to pile driving vibration impacts could be mitigated through pre-construction assessment, vibration monitoring during construction, and corrective actions as needed • Potentially significant impact due to relocation of Teatro Zinzanni to a site within the Northeast Waterfront Historic District could be mitigated through conformance with Secretary's Standards and design guidelines consistent with Article 10 of the Planning Code	No impacts	Similar to Proposed Project but no impacts at anticipated secondary viewing areas	Similar to Proposed Project, except for the following: • no impacts on historic seawall at Marina Green ~~• less severe impacts at spectator venues~~	Same as Proposed Project

City staff has revised the following text on page 8-3:

34th America's Cup Event Authority
160 Pacific Avenue
San Francisco, CA 94111

- Rosie Spaulding
- John Stringer
- ~~Patrick Jost John Craig~~
- ~~Iain Murray~~ Bob Billingham
- Andy Hindley
- Jill Savery
- Ariel Ungerleider
- Gary Lovejoy
- Stephanie Martin

AECOM
150 Chestnut Street
San Francisco, CA 94111

- Scott Preston, PE
- David Reel
- Linda Cheu
- Mary Laux
- Susan Yogi
- Michael Arnold

13.1.3 Volume 3

The following new or augmented appendices supplement the technical information provided in the Draft EIR or provide supporting documentation for project updates. These supplemental appendices are listed below and included in Volume 8 of the Comments and Responses document.

Appendix PD-1A	Supplemental Spectator Boat Information from AECOM
Appendix CP-1A	Revised Historic Resource Evaluation Response
Appendix CP-5	America's Cup Improvements, Piers 27-29, Project Consistency with Secretary's Standards
Appendix CP-6	Historical Resources Report Piers 27, 29 and 31, San Francisco, California
Appendix CP-7	Northeast Wharf Plaza, Pier 27: Assessment of Project Consistency with *Secretary's Standards* and Performance Criteria Appendix
Appendix AQ-2A	Updated Health Risk Assessment Results for AC34 Project Variant
Appendix AQ-3A	Updated Air Quality Calculation Sheets for the Final EIR
Appendix AQ-4	Cruise Ship Vessel Activity and Emission Inventory Methodology, James R. Herman Cruise Terminal and Northeast Wharf Plaza Project

Appendix AQ-5	Fuel Assumptions for Marine Vessels Operating at AC34
Appendix AQ-6	Shoreside Power at BAE Systems Facility, Pier 70
Appendix TR-5A	Addendum to Appendix TR-5
Appendix TR-7A	Appendix TR-7 Replacement Pages

13.1.4 Volume 4

City staff has revised portions of Appendix TR plus added Appendix TR-5A as an addendum to Appendix TR-5A. These corrections and supplemental appendix are included in Volume 8 of the Comments and Responses document.